

SUBMIT: COMPLETED APPLICATION, TAX STATEMENT AND FEE TO:
Bayfield County
Planning and Zoning Depart.
PO Box 58
Washburn, WI 54891
(715) 373-6138

APPLICATION FOR PERMIT
BAYFIELD COUNTY, WISCONSIN

Date Stamp (Received)
JAN 11 2022

Bayfield Co.
Planning and Zoning Agency

Permit #:	22-0039
Date:	3-3-2022
Amount Paid:	\$12500 1-11-22 JTB Com-Alteration
Other:	
Refund:	

INSTRUCTIONS: No permits will be issued until all fees are paid.
Checks are made payable to: Bayfield County Zoning Department.

DO NOT START CONSTRUCTION UNTIL ALL PERMITS HAVE BEEN ISSUED TO APPLICANT.

Original Application MUST be submitted

FILL OUT IN INK (NO PENCIL)

TYPE OF PERMIT REQUESTED		<input checked="" type="checkbox"/> LAND USE		<input type="checkbox"/> SANITARY	<input type="checkbox"/> PRIVY	<input type="checkbox"/> CONDITIONAL USE	<input type="checkbox"/> SPECIAL USE	<input type="checkbox"/> B.O.A.	<input type="checkbox"/> OTHER
Owner's Name: T-Mobile / Norvado, Inc.		Mailing Address: 43704 US Hwy 63		City/State/Zip: Cable, WI 54821		Telephone: (208) 229-8710			
Address of Property: 15185 Nordmor Road		City/State/Zip: Cable, WI 54821		Cell Phone: (714) 658-1502					
Email: (print clearly) mary.marshall@powderriverdev.com		Contractor: TBD		Contractor Phone:		Plumber:		Plumber Phone:	
Authorized Agent: (Person Signing Application on behalf of Owner(s)) Mary Marshall- Powder River Development		Agent Phone: (208) 229-8710		Agent Mailing Address (include City/State/Zip): 408 S. Eagle Rd. Suite 200, Eagle, ID 83616		Written Authorization Required (for Agent)			
PROJECT LOCATION SW 1/4, NW 1/4	Legal Description: (Use Tax Statement)		Tax ID# 2982 9104		Recorded Document: (Showing Ownership) 2021 11 592 594				
Gov't Lot	Lot(s)	CSM	Vol & Page	CSM Doc #	Lot(s) #	Block #	Subdivision:		
Section 28	Township 43	N, Range 07	W	Town of: Cable	Lot Size		Acreage		

<input type="checkbox"/> Shoreland	<input type="checkbox"/> Is Property/Land within 300 feet of River, Stream (incl. Intermittent) Creek or Landward side of Floodplain? If yes—continue →	Distance Structure is from Shoreline : _____ feet	Is your Property in Floodplain Zone? <input type="checkbox"/> Yes <input type="checkbox"/> No	Are Wetlands Present? <input type="checkbox"/> Yes <input type="checkbox"/> No
	<input type="checkbox"/> Is Property/Land within 1000 feet of Lake, Pond or Flowage If yes—continue →	Distance Structure is from Shoreline : _____ feet		
<input checked="" type="checkbox"/> Non-Shoreland				

Value at Time of Completion * include donated time & material	Project	Project # of Stories	Project Foundation	Total # of bedrooms on property	What Type of Sewer/Sanitary System(s) is on the property or Will be on the property?	Type of Water on property
\$ 25,000.00	<input type="checkbox"/> New Construction	<input type="checkbox"/> 1-Story	<input type="checkbox"/> Basement	<input type="checkbox"/> 1	<input type="checkbox"/> Municipal/City	<input type="checkbox"/> City
	<input checked="" type="checkbox"/> Addition/Alteration	<input type="checkbox"/> 1-Story + Loft	<input type="checkbox"/> Foundation	<input type="checkbox"/> 2	<input type="checkbox"/> (New) Sanitary Specify Type: _____	<input type="checkbox"/> Well
	<input type="checkbox"/> Conversion	<input type="checkbox"/> 2-Story	<input type="checkbox"/> Slab	<input type="checkbox"/> 3	<input type="checkbox"/> Sanitary (Exists) Specify Type: _____	<input type="checkbox"/>
	<input type="checkbox"/> Relocate (existing bldg)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Privy (Pit) or <input type="checkbox"/> Vaulted (min 200 gallon)	<input type="checkbox"/>
	<input type="checkbox"/> Run a Business on Property		<input type="checkbox"/> Use	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Portable (w/service contract)	<input type="checkbox"/>
	<input type="checkbox"/>		<input type="checkbox"/> Year Round		<input type="checkbox"/> Compost Toilet	<input type="checkbox"/>
					<input checked="" type="checkbox"/> None	

Existing Structure: (if addition, alteration or business is being applied for)	Length: 31"	Width: 58"	Height: 30'
Proposed Construction: (overall dimensions)	Length: 30"	Width: 72"	Height: 36'

Proposed Use	✓	Proposed Structure	Dimensions	Square Footage
<input type="checkbox"/> Residential Use	<input type="checkbox"/>	Principal Structure (first structure on property)	(X)	
	<input type="checkbox"/>	Residence (i.e. cabin, hunting shack, etc.)	(X)	
		with Loft	(X)	
		with a Porch	(X)	
		with (2nd) Porch	(X)	
<input checked="" type="checkbox"/> Commercial Use		with a Deck	(X)	
		with (2nd) Deck	(X)	
		with Attached Garage	(X)	
<input type="checkbox"/> Municipal Use	<input type="checkbox"/>	Bunkhouse w/ (<input type="checkbox"/> sanitary, or <input type="checkbox"/> sleeping quarters, or <input type="checkbox"/> cooking & food prep facilities)	(X)	
	<input type="checkbox"/>	Mobile Home (manufactured date) _____	(X)	
	<input type="checkbox"/>	Addition/Alteration (explain) _____	(X)	
	<input type="checkbox"/>	Accessory Building (explain) _____	(X)	
	<input type="checkbox"/>	Accessory Building Addition/Alteration (explain) _____	(X)	
	<input type="checkbox"/>	Special Use: (explain) _____	(X)	
	<input type="checkbox"/>	Conditional Use: (explain) _____	(X)	
	<input checked="" type="checkbox"/>	Other: (explain) existing wireless telecommunications facility	(X)	

I (we) declare that this application (including any accompanying information) has been examined by me (us) and to the best of my (our) knowledge and belief it is true, correct and complete. I (we) acknowledge that I (we) am (are) responsible for the detail and accuracy of all information I (we) am (are) providing and that it will be relied upon by Bayfield County in determining whether to issue a permit. I (we) further accept liability which may be a result of Bayfield County relying on this information I (we) am (are) providing in or with this application. I (we) consent to county officials charged with administering county ordinances to have access to the above described property at any reasonable time for the purpose of inspection.

Owner(s):
(If there are Multiple Owners listed on the Deed All Owners must sign on letter(s) of authorization must accompany this application)

Authorized Agent: Mary Marshall (See Note below)
(If you are signing on behalf of the owner(s) a letter of authorization must accompany this application)

Address to send permit 408 S. EAGLE ROAD #200, EAGLE, ID 83616

Date _____

Date 01/04/22

Attach
Copy of Tax Statement

If you recently purchased the property send your Recorded Deed

Turn Over



APPLICANT - PLEASE COMPLETE PLOT PLAN

In the box below: **Draw or Sketch your Property** (regardless of what you are applying for)

- (1) Show Location of:

(2) Show / Indicate:

(3) Show Location of (*):

(4) Show:

(5) Show:

(6) Show any (*):

(7) Show any (*):
- Proposed Construction

North (N) on Plot Plan

(*) Driveway and (*) Frontage Road (Name Frontage Road)

All Existing Structures on your Property

(*) Well (W); (*) Septic Tank (ST); (*) Drain Field (DF); (*) Holding Tank (HT) and/or (*) Privy (P)

(*) Lake; (*) River; (*) Stream/Creek; or (*) Pond

(*) Wetlands; or (*) Slopes over 20%

Fill Out in Ink – NO PENCIL



Please complete (1) – (7) above (prior to continuing)

Changes in plans must be approved by the Planning & Zoning Dept.

(8) Setbacks: (measured to the closest point)

Description	Setback Measurements	Description	Setback Measurements
Setback from the Centerline of Platted Road	2119 Feet	Setback from the Lake (ordinary high-water mark)	99 Feet
Setback from the Established Right-of-Way	2119 Feet	Setback from the River, Stream, Creek	Feet
		Setback from the Bank or Bluff	Feet
Setback from the North Lot Line	180 Feet		
Setback from the South Lot Line	1124 Feet	Setback from Wetland	Feet
Setback from the West Lot Line	356 Feet	20% Slope Area on the property	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Setback from the East Lot Line	935 Feet	Elevation of Floodplain	Feet
Setback to Septic Tank or Holding Tank	Feet	Setback to Well	Feet
Setback to Drain Field	Feet		
Setback to Privy (Portable, Composting)	Feet		

Prior to the placement or construction of a structure within ten (10) feet of the minimum required setback, the boundary line from which the setback must be measured must be visible from one previously surveyed corner to the other previously surveyed corner or marked by a licensed surveyor at the owner's expense.

Prior to the placement or construction of a structure more than ten (10) feet but less than thirty (30) feet from the minimum required setback, the boundary line from which the setback must be measured must be visible from one previously surveyed corner to the other previously surveyed corner, or verifiable by the Department by use of a corrected compass from a known corner within 500 feet of the proposed site of the structure, or must be marked by a licensed surveyor at the owner's expense.

(9) Stake or Mark Proposed Location(s) of New Construction, Septic Tank (ST), Drain field (DF), Holding Tank (HT), Privy (P), and Well (W).

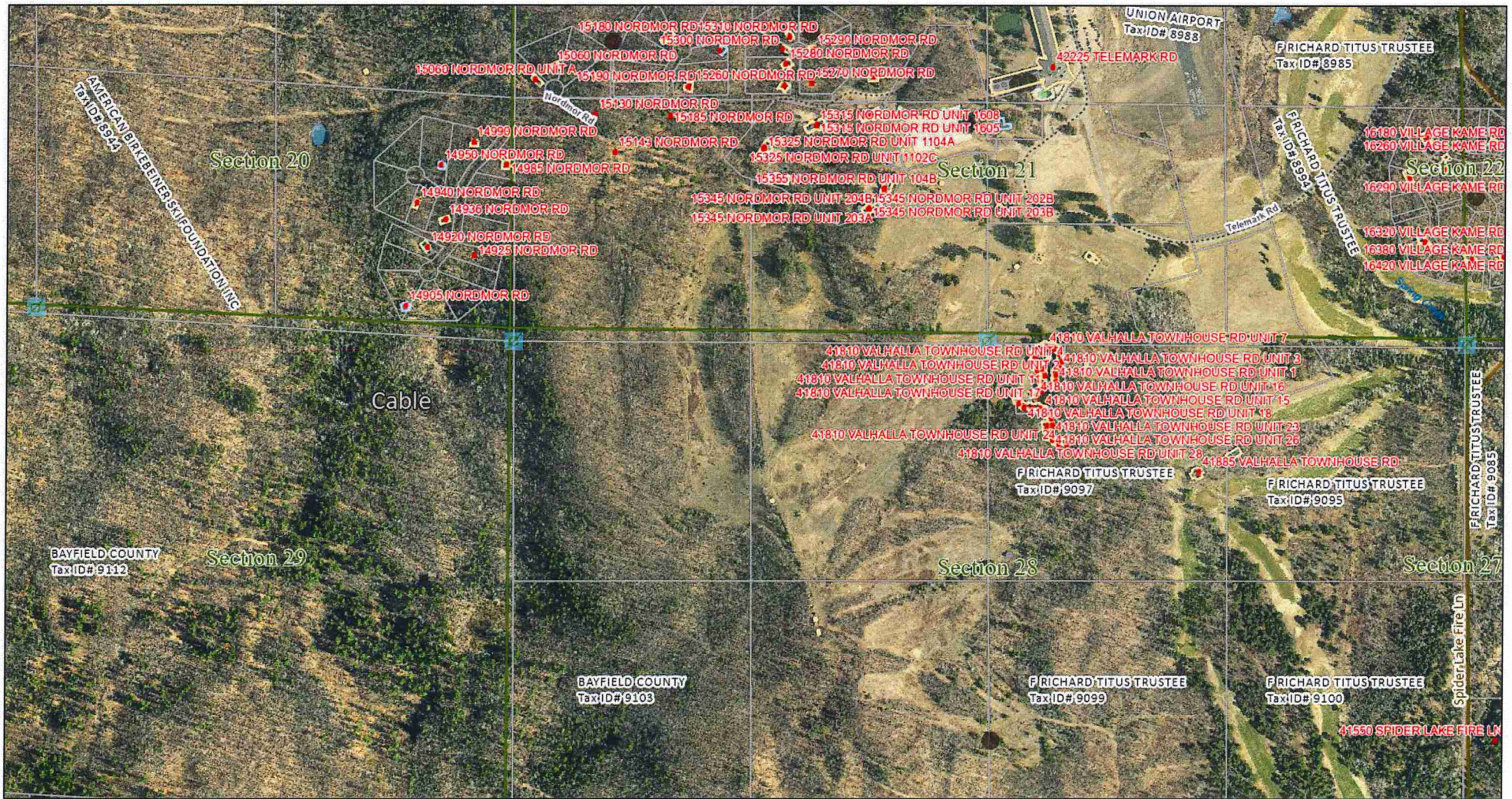
NOTICE(s): All Land Use Permits Expire One (1) Year from the Date of Issuance if Construction or Use has not begun.
For the Construction of New One & Two Family Dwelling: All Municipalities Are Required To Enforce The Uniform Dwelling Code.
The local Town, Village, City, State or Federal agencies may also require permits.

If subject property is part of a Condominium Plat, applicant hereby certifies and represents that applicant has all necessary approvals and recorded documents required to complete the project for which this permit is sought including requirements set forth in Wisconsin statutes pertaining to condominium associations, the Declaration of the Condominium Association in which the property is located, and all other rules, regulations and requirements pertaining to that Condominium Association.

You are responsible for complying with state and federal laws concerning construction near or on wetlands, lakes, and streams. Wetlands that are not associated with open water can be difficult to identify. Failure to comply may result in removal or modification of construction that violates the law or other penalties or costs. For more information, visit the department of natural resources wetlands identification web page or contact a department of natural resources service center (715) 685-2900.

Issuance Information (County Use Only)	Sanitary Number:	# of bedrooms:	Sanitary Date:
Permit Denied (Date):	Reason for Denial:		
Permit #: 22-0039	Permit Date: 3-3-2022		
Is Parcel a Sub-Standard Lot Is Parcel in Common Ownership Is Structure Non-Conforming	<input type="checkbox"/> Yes (Deed of Record) <input type="checkbox"/> Yes (Fused/Contiguous Lot(s)) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/> No	Mitigation Required Mitigation Attached	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Affidavit Required Affidavit Attached <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Granted by Variance (B.O.A.) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Case #:		Previously Granted by Variance (B.O.A.) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Case #:	
Was Parcel Legally Created Was Proposed Building Site Delineated		Were Property Lines Represented by Owner Was Property Surveyed	
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Inspection Record: Antenna on other lot change Antenna & upgrade cabinet		Zoning District (R-AB) Lakes Classification (N/A)	
Date of Inspection: 12/20/21		Inspected by: A. Pater	
Date of Re-Inspection:		Date of Re-Inspection:	
Condition(s): Town, Committee or Board Conditions Attached? <input type="checkbox"/> Yes <input type="checkbox"/> No - (If No they need to be attached.) - Mobility as proposed			
Signature of Inspector: A. Pater		Date of Approval: 2/1/22	
Hold For Sanitary: <input type="checkbox"/>	Hold For TBA: <input type="checkbox"/>	Hold For Affidavit: <input type="checkbox"/>	Hold For Fees: <input type="checkbox"/>

Bayfield County, WI

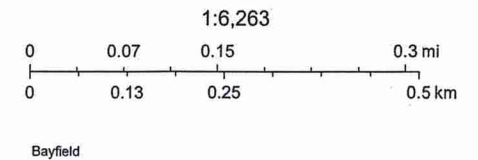


1/31/2022, 7:38:22 AM

Building Footprint Outline 2009-2015

- Changed
- Demolished
- Existing
- New
- Rivers
- Lakes
- Tie Lines
- Meander Lines
- Approximate Parcel Boundary
- Section Lines

- Municipal Boundary
- All Roads
- Private
- Survey Maps
- UnRecorded Map
- Recorded Map
- Corner Tie Sheets
- Section Corner Monument on File
- Driveways
- Buildings



 **Description** Updated: 1/12/2022

Tax ID: 9104
PIN: 04-012-2-43-07-28-2 04-000-10000
Legacy PIN: 012107410000
Map ID:
Municipality: (012) TOWN OF CABLE
STR: S28 T43N R07W
Description: SE NW IN DOC 2021R-592594 492A
Recorded Acres: 40.000
Calculated Acres: 39.106
Lottery Claims: 0
First Dollar: No
Zoning: (R-RB) Residential-Recreational Business
ESN: 108

 **Tax Districts** Updated: 3/15/2006

04 STATE
012 COUNTY
041491 TOWN OF CABLE
001700 SCHL-DRUMMOND
TECHNICAL COLLEGE

 **Recorded Documents** Updated: 4/5/2012 **CORRECTION INSTRUMENT**

Date Recorded: 12/15/2021 2021R-592594

 **WARRANTY DEED**

Date Recorded: 2/11/2021 2021R-587023

 **SHERIFFS DEED ON FORECLOSURE**

Date Recorded: 11/7/2013 2013R-552229 1117-714

 **WARRANTY DEED**

Date Recorded: 6/21/2011 2011R-538992 1063-948

 **Ownership** Updated: 9/21/2021

AMERICAN BIRKEBEINER SKI FOUNDATION INC HAYWARD WI

Billing Address:

AMERICAN BIRKEBEINER SKI FOUNDATION INC
PO BOX 911
HAYWARD WI 54843

Mailing Address:

AMERICAN BIRKEBEINER SKI FOUNDATION INC
PO BOX 911
HAYWARD WI 54843

 **Site Address** * indicates Private Road

N/A

 **Property Assessment** Updated: 6/17/2020**2021 Assessment Detail**

Code	Acres	Land	Imp.
G6-PRODUCTIVE FOREST	40.000	84,000	0

2-Year Comparison

	2020	2021	Change
Land:	84,000	84,000	0.0%
Improved:	0	0	0.0%
Total:	84,000	84,000	0.0%

 **Property History**

N/A



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JAN 11 2022

Bayfield Co.
Planning and Zoning Agency

Powder River Development Services, LLC
408 S. Eagle Rd., Suite 200
Eagle, ID 83616
(208) 938-8844 office
(208) 938-8855 fax
www.powderriverdev.com

January 4, 2022

Bayfield County Planning and Zoning
P.O. Box 58
Washburn, WI 54891

RE: Application for Permit Submittal

T-Mobile Site ID: A1N0961A Cable Tower
Site Location: 15185 Nordmor Road, Cable, WI 54821
Property ID Number: 04-012-2-43-07-28-2 04-000-10000

Powder River Development Services represents T-Mobile regarding their proposed upgrades and modifications to the existing unmanned wireless telecommunications facility referenced above.

The Scope of Work Includes:

At antenna level:

Remove (3) Antennas, (2) FXFC, (1) 1.0 COVP and (1) Hybrid Cable; install (6) Antennas, (3) AHFIG, (3) AHLOA and (2) HCS 2.0 Hybrid Cable w/ Integral Pendant Breakout.

At equipment level:

Remove (1) FSMF, (1) 1.0 COVP, (1) SSC, (1) Flexi Table and (1) CSR 7705 SAR A; relocate (1) FSMF; install (2) ASIB, (2) ASIK, (3) ABIA, (6) ABIL, (2) ABIC, (2) AMIA, (1) Voltage Booster w/ (1) Extra AMP, (1) CSR IXRE V2 (GEN2), (1) LB3 Battery Cabinet, (1) HPL3 Cabinet and (2) HCS 2.0 Tower Junction Boxes.

There will be no increase in the tower height and no expansion of the equipment area.

Enclosed Submittal Documents:

- Completed Application for Permit
- Letter of Authorization from Property Owner
- Property Ownership Listing
- Eligible Facilities Request Letter
- Construction Drawings
- \$125.00 Check for Application Fee

Project Valuation: \$25,000.00

If you have any questions or need more information, I can be reached by phone at (208) 229-8710 or by email at mary.marshall@powderriverdev.com.

Respectfully,


Mary Marshall
Site Acquisition Manager

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Bayfield Co.
Planning and Zoning Agency

LETTER OF AUTHORIZATION

To: Bayfield County Planning and Zoning Department

RE: Land Use Permit Application

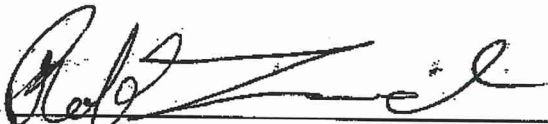
T-Mobile Site ID: A1N0961A Cable Tower

Property Address: 15185 Nordmor Road, Cable, WI 54821

Parcel ID Number: 04-012-2-43-07-28-2 04-000-10000

As owner(s) or authorized representative of the above-described property, I/we hereby appoint Powder River Development Services, including their authorized representatives, as agent for the purpose of completing and submitting any Land Use Applications necessary to ensure T-Mobile USA's ability to use and/or construct improvements to the property leased, or licensed to it for the purpose of modifying an existing Wireless Telecommunications Facility. Powder River Development Services agrees to acquire written approval from T-Mobile USA on all plans and drawings prior to submitting to the governmental jurisdiction for Land Use approval. I/We understand that the application may be denied, modified or approved with conditions and that such conditions or modifications must be complied with prior to issuance of Building Permits.

I/We hereby authorize the employees of the Bayfield County Planning and Zoning Department to enter upon the subject property during normal business hours as necessary to inspect the property for the purpose of processing this application.



Property Owner or Authorized Representative Signature

Rob Lombardo

Name

C.O.O.

Title

12/14/21

Date

Real Estate Bayfield County Property Listing

Today's Date: 1/4/2022

Property Status: **Current**

Created On: 3/15/2006 1:15:05 PM

**Description**

Updated: 9/21/2021

Tax ID: 8982
PIN: 04-012-2-43-07-21-3 03-000-10000
Legacy PIN: 012106107000
Map ID:
Municipality: (012) TOWN OF CABLE
STR: S21 T43N R07W
Description: PAR IN SW SW IN DOC 2021R-587023 397
Recorded Acres: 39.000
Calculated Acres: 39.201
Lottery Claims: 0
First Dollar: No
Zoning: (R-RB) Residential-Recreational Business
ESN: 108

**Tax Districts**

Updated: 3/15/2006

1	STATE
04	COUNTY
012	TOWN OF CABLE
041491	SCHL-DRUMMOND
001700	TECHNICAL COLLEGE

**Recorded Documents**

Updated: 3/15/2006

WARRANTY DEED
 Date Recorded: 2/11/2021 **2021R-587023**

SHERIFFS DEED ON FORECLOSURE
 Date Recorded: 11/7/2013 2013R-552229 1117-714

CONVERSION
 Date Recorded: 767-372

**Ownership**

Updated: 9/21/2021

AMERICAN BIRKEBEINER SKI FOUNDATION INC HAYWARD WI

Billing Address:

AMERICAN BIRKEBEINER SKI FOUNDATION INC
 PO BOX 911
 HAYWARD WI 54843

Mailing Address:

AMERICAN BIRKEBEINER SKI FOUNDATION INC
 PO BOX 911
 HAYWARD WI 54843

**Site Address** * indicates Private Road

15185 NORDMOR RD * CABLE 54821

**Property Assessment**

Updated: 6/17/2020

2021 Assessment Detail

Code	Acres	Land	Imp.
G6-PRODUCTIVE FOREST	39.000	81,900	0

2-Year Comparison

	2020	2021	Change
Land:	81,900	81,900	0.0%
Improved:	0	0	0.0%
Total:	81,900	81,900	0.0%

**Property History**

N/A

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JAN 11 2022

Bayfield Co.
 Planning and Zoning Agency



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Bayfield Co.
Planning and Zoning Agency

Eligible Facilities Request

Date: January 4, 2022

To: Bayfield County Planning and Zoning

From: Powder River Development Services, LLC o/b/o T-Mobile Central LLC

Re: Eligible Facilities Request to modify Transmission Equipment on an Existing Wireless Tower located at 15143 Nordmor Road, Cable, WI 54821; T-Mobile Site: A1N0961A

A. T-Mobile's Proposed Project is an Eligible Facilities Request that Must Be Granted

Powder River Development Services, LLC on behalf of T-Mobile Central LLC ("Applicant") is submitting the attached application to add, remove, modify, or replace Transmission Equipment (the "Request") at the existing Tower located at 15143 Nordmor Road, Cable, WI 54821 in Bayfield County ("County").

This Request is covered by Section 6409 of the Spectrum Act (47 U.S.C. Sect. 1455(a)),¹ which provides that state and local governments "may not deny, and shall approve, any eligible facilities request for a modification of an existing wireless tower or base station that does not substantially change the physical dimensions of such tower or base station." In this case, the enclosed Request involves a proposal to remove and replace antennas, coax cables and misc. ancillary equipment. The existing Tower is a structure that is 55 feet high and presently contains wireless facilities.

In its implementing regulations, the Federal Communications Commissions ("FCC") determined that any modification to an existing telecommunications Tower that meets the following criteria does not substantially change the physical dimensions of the existing Tower (47 C.F.R. § 1.6100(b)(7)), and therefore is an Eligible Facilities Request that must be granted under Section 6409. The proposed project satisfies those criteria as outlined below because it:

- 1) Will not increase the height of the Tower by more than ten percent (10%) or twenty (20) feet, whichever is greater;

¹ See also 47 C.F.R. § 1.6100 (the FCC's 6409 implementing regulations).

There will be no increase in Tower height.

- 2) Does not protrude from the edge of the Tower by more than twenty (20) feet;

The antennas will not protrude from the edge of the Tower by more than twenty (20) feet.

- 3) The proposed project does not defeat any existing concealment elements. To be considered a "concealment element," the element must have been a part of the facility at either:

- (1) the time of original approval; or
- (2) at the last modification of the tower if such modification occurred prior to the February 22, 2012 or outside the 6409(a) process (whichever is later).

The definition of "concealment elements" does not extend to "any attribute that minimizes the visual impact of a facility, such as a specific location on a rooftop site or placement behind a tree line or fence."² Moreover, a proposed modification can increase the size of the concealment features, so long as they: (i) do not increase by more than the criteria in (1) and (2) above, and (ii) would continue to effectively make "the structure appear not to be a wireless Facility." If the concealment elements would continue to effectively make the structure appear not to be a wireless facility after the proposed modification, then the modification would not defeat concealment

The existing site does not have any existing concealment elements, so this criterion is satisfied.

- 4) Does not entail any excavation outside the current Tower site;

The proposed project will not involve excavations outside the current Tower site.

- 5) Does not involve the installation of more than the standard number of equipment cabinets for the technology involved, not to exceed four.

The proposed project will involve the removal of two (2) existing cabinets and the installation of two (2) new cabinets for a total of two (2) cabinets.

- 6) The proposed project complies with all prior conditions of approval for the existing site, except for any non-compliance that is due to an increase in height, increase in width,

² *Implementation of State and Local Governments' Obligation to Approve Certain Wireless Facility Modification Requests Under Section 6409(a) of the Spectrum Act of 2012*, FCC 20-75, Declaratory Ruling and Notice of Proposed Rulemaking, ¶ 35 (June 10, 2020). ("5G Upgrade Order").

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Bayfield Co.
Planning and Zoning Agency

addition of equipment cabinets, or new excavation that does not exceed the thresholds above. These conditions may relate to aesthetics or minimizing the visual impact of the wireless facility. To be enforced, there must be express evidence of specific conditions of approval and continued compliance with such conditions.

This project includes the removal of three (3) existing antennas, replacing them with three (6) new antennas.

Finally, all of the equipment being installed as part of this Request qualifies as Transmission Equipment under the FCC's rules at 47 C.F.R. § 1.6100(b)(8).

Based on the foregoing, the Request qualifies for expedited processing under the Spectrum Act.

B. The 60 day Shot Clock Applies to All Necessary Permits or Authorizations to Necessary for T-Mobile to Proceed with the Request

Under Section 6409 "a State or local government may not deny, and shall approve, any eligible facilities request . . . " within 60 days of the filing of a complete application.³ As the FCC's explained in its recent declaratory rule, that time period covers "all qualifying applications" and all necessary permits and authorizations.⁴ Where a jurisdiction requires an applicant too obtain clearance from numerous separate departments or obtained numerous permits, the FCC explained that the applicant starts **the 60 day shot clock when: 1) it takes the "first procedural step" that the jurisdiction requires, even if there are multiple potential "first steps" with various municipal committees or departments, and 2) the applicant provides written documentation demonstrating that the applicable eligible facilities request criteria are satisfied.**⁵

Thus, it is clear that the shot clock and deemed granted remedy of the FCC's rules apply to all of Barron County's requirements, and the 60 day period starts with the filing of the enclosed application.

C. Notice of Expedited Permit Processing and Deemed Granted Remedy

Under federal law, any Eligible Facilities Request is deemed granted sixty (60) days after a complete application is filed. Thus, if sixty days pass after the submission of this Request and the County has not acted to grant or deny the Request, it will be deemed granted.⁶ At that time, the

³ *Id.* ¶ 39 (June 10, 2020). 47 U.S.C. § 1455(a)(1).

⁴ *County of Portland v. U.S.*, 2020 U.S. App. Lexis 25553 **48-49 (9th Cir. Aug. 12, 2020).

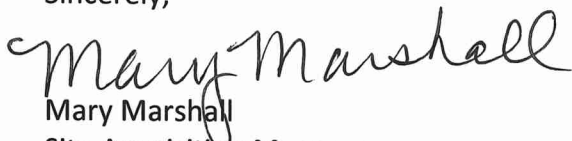
⁵ *5G Upgrade Order*, ¶¶ 15-16 (June 10, 2020). The FCC also explained that its ruling provided "considerable flexibility" to structure their procedures for review of Eligible Facilities Requests, "but prevent localities from 'impos[ing] lengthy and onerous processes not justified by the limited scope of review contemplated' by Section 6409(a)." *Id.* ¶ 17.

⁶ Under the FCC's rules, the jurisdiction has 30 days to advise the applicant of the completeness of its application. The rules also provide for the tolling of the shot clock under certain situations.

applicant may advise the County that the application has been deemed granted. If the County wishes to contest whether Request has been deemed granted, the burden is on the County to file a lawsuit in a court of competent jurisdiction within 30 days after receipt of a written communication notifying it that the Request has been deemed granted.

T-Mobile is committed to working cooperatively with you to process this request in a timely and efficient manner. Please do not hesitate to contact me if you have questions at the phone number or email below.

Sincerely,



Mary Marshall
Site Acquisition Manager
Powder River Development Services, LLC
408 S. Eagle Drive, Suite 200
Eagle, ID 83616
(208) 229-8710
mary.marshall@powderriverdev.com

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Planning and Zoning Agency

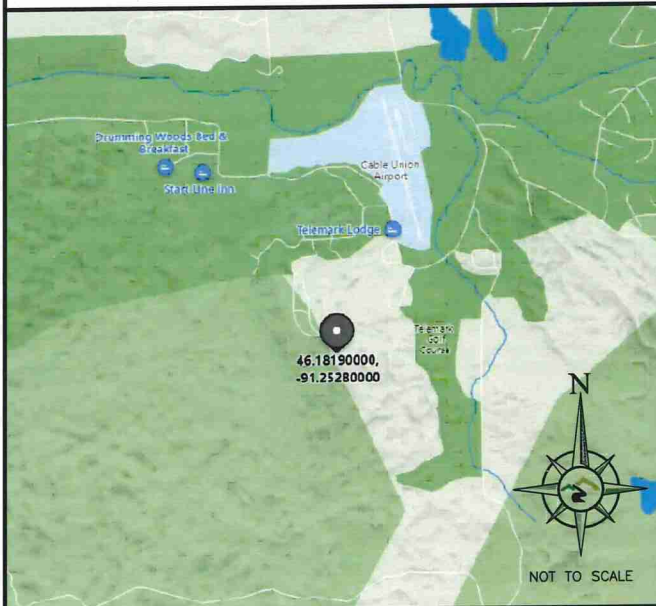
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T-Mobile®

SITE PHOTO



VICINITY MAP



T-MOBILE PROJECT

ANCHOR

SITE INFORMATION

T-MOBILE SITE NUMBER: A1N0961A
T-MOBILE SITE NAME: CABLE WI-TELEMARK
SITE TYPE: 55 SELF SUPPORT TOWER
SITE ADDRESS: 15143 NORDMORE ROAD
CABLE, WI 54821
COUNTY: BAYFIELD
JURISDICTION: BAYFIELD COUNTY

PROJECT DESCRIPTION

ANTENNA (CL): 55'
AT ANTENNA LEVEL
REMOVE (3) ANTENNAS, (2) FXFC, (1) 1.0 COVP, AND (1) 1.0 HYBRID CABLES.
INSTALL (6) ANTENNAS, (3) AHLOA, (3) AHFIG, (2) HCS 2.0 HYBRID CABLE w/ INTEGRAL PENDANT BREAKOUT.
AT GROUND LEVEL
REMOVE (1) FSMF, (1) 1.0 COVP, (1) SSC, (1) FLEXI TABLE, AND (1) CSR 7705 SAR A.
RELOCATED (1) FSMF.
INSTALL (2) ASIB, (2) ASIK, (3) ABIA, (6) ABIL, (3) ABIC, (2) AMIA, (1) VOLTAGE BOOSTER w/ (1) AMPS, (1) CSR IRe V2 (GEN2), (1) LB3 BATTERY CABINET, (1) HPL3 CABINET, AND (2) HCS 2.0 JUNCTION BOXES.
THESE DRAWINGS ARE BASED ON RFDS VERSION 2 DATED 10/28/2021
GENERAL CONTRACTOR TO VERIFY AND INCORPORATE MOST RECENT VERSION OF THE RFDS WITH T-MOBILE NETWORKS PRIOR TO CONSTRUCTION.

PROPERTY LOCATION

PROPERTY ADDRESS: 15143 NORDMORE ROAD
CABLE, WI 54821
TOWER OWNER: NORVADO, INC.

APPLICABLE CODES

2020 MINNESOTA BUILDING CODE
2017 NATIONAL ELECTRICAL CODE

CONTACT INFORMATION

APPLICANT:
T-MOBILE USA, INC.
8000 WEST 78TH STREET, SUITE 400
EDINA, MN 55439
OFFICE: 612.701.2069
A&E SERVICES:
POWDER RIVER DEVELOPMENT SERVICES, LLC.
408 S. EAGLE ROAD, SUITE 200
EAGLE, ID 83616
CONTACT: CHRIS CROSBY
PHONE: 763.360.1451
EMAIL: chris.crosby@powderriverdev.com
SITE ACQUISITION:
POWDER RIVER DEVELOPMENT SERVICES, LLC.
408 S. EAGLE ROAD, SUITE 200
EAGLE, ID 83616
CONTACT: MARY MARSHALL
PHONE: 208.229.8710
EMAIL: mary.marshall@powderriverdev.com

TOWER OWNER INFO

LL SITE ID: N/A
LL SITE NAME: TELEMARK B20

COORDINATES

LATITUDE: 46.18190000°
LONGITUDE: -91.25280000°
(PER MOST RECENT RFDS)

DRAWING INDEX

SHEET NO.	DESCRIPTION	REV
T-1	TITLE SHEET	0
GN-1	GENERAL NOTES	0
GN-2	GENERAL NOTES	0
C-1	OVERALL SITE PLAN	0
C-1.1	SITE PLAN	0
C-2	EXISTING EQUIPMENT PLAN	0
C-2.1	PROPOSED EQUIPMENT PLAN	0
C-3	EQUIPMENT DETAILS	0
C-4	EQUIPMENT DETAILS	0
C-5	EQUIPMENT DETAILS	0
C-6	EQUIPMENT DETAILS	0
C-7	EQUIPMENT DETAILS	0
C-8	EQUIPMENT DETAILS	0
C-9	CABLE & PENDANT SPECIFICATIONS	0
C-10	SITE PHOTOS	0
C-11	SITE PHOTOS	0
A-1	TOWER ELEVATIONS	0
A-2	ANTENNA PLANS	0

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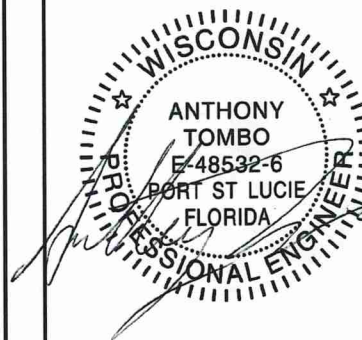
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COA #: 3588-11

REVISIONS			
REV	DATE	DESCRIPTION	INT
0	12/29/21	100% CONSTRUCTION	JAS
B	12/08/21	ISSUED FOR REVIEW 90%	JHT
A	12/02/21	ISSUED FOR REVIEW 90%	JHT



THESE PLANS AND SPECIFICATIONS, AS INSTRUMENTS OF SERVICE, ARE
AND SHALL REMAIN THE PROPERTY OF POWDER RIVER DEVELOPMENT
SERVICES, LLC WHETHER THE PROJECTS FOR WHICH THEY ARE MADE
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15143 NORDMORE ROAD
CABLE, WI 54821
BAYFIELD

SHEET TITLE:

TITLE SHEET

SHEET NUMBER:

T-1

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- CONDITIONS, AND SHALL BE INCLUDED AS PART OF THE WORK.
20. EXISTING ELEVATIONS AND LOCATIONS TO BE JOINED SHALL BE VERIFIED BY THE CONTRACTOR BEFORE CONSTRUCTION. IF THEY DIFFER FROM THOSE SHOWN ON THE PLANS, THE CONTRACTOR SHALL NOTIFY THE CARRIER CONSTRUCTION SUPERVISOR SO THAT MODIFICATIONS CAN BE MADE BEFORE PROCEEDING WITH THE WORK.
21. ALL SYMBOLS AND ABBREVIATIONS USED ON THE DRAWINGS ARE CONSIDERED CONSTRUCTION STANDARDS. IF THE CONTRACTOR HAS QUESTIONS REGARDING THEIR EXACT MEANING, THE ENGINEER SHALL BE CONTACTED FOR CLARIFICATION BEFORE PROCEEDING WITH THE WORK.
22. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY BLOCKING, BACKING, FRAMING, HANGERS OR OTHER SUPPORT NOT OTHERWISE SHOWN HEREIN. ALL SUSPENDED MECHANICAL EQUIPMENT TO BE SWAY OR LATEROALLY BRACED.
23. GOVERNING AGENCY-APPROVED PLANS SHALL BE KEPT IN A PLAN BOX AND SHALL NOT BE USED BY WORKMEN. ALL CONSTRUCTION SETS SHALL REFLECT SAME INFORMATION. AT ALL TIMES THESE ARE TO BE UNDER THE CARE OF THE JOB SUPERINTENDENT.
24. DESIGN DRAWINGS ARE DIAGRAMMATIC ONLY AND SHALL BE FOLLOWED AS CLOSELY AS ACTUAL CONSTRUCTION CONDITIONS WILL PERMIT. ANY ERROR, OMISSION, OR DESIGN DISCREPANCY SHALL BE BROUGHT TO THE ATTENTION OF THE CARRIER CONSTRUCTION SUPERVISOR FOR CLARIFICATION OR CORRECTION BEFORE CONSTRUCTION.
25. AS-BUILT REQUIREMENTS: DO NOT USE RECORD DOCUMENTS FOR CONSTRUCTION PURPOSES. PROTECT RECORD DOCUMENTS FROM DETERIORATION AND LOSS IN A SECURE, FIRE-RESISTANT LOCATION. PROVIDE ACCESS TO RECORD DOCUMENTS FOR THE CARRIER CONSTRUCTION SUPERVISOR'S REFERENCE DURING NORMAL WORKING HOURS. MAINTAIN A CLEAN, UNDAMAGED SET OF BLUE OR BLACK LINE PRINTS OF CONTRACT DRAWINGS AND SHOP DRAWINGS. MARK THE SET TO SHOW THE ACTUAL INSTALLATION WHERE THE INSTALLATION VARIES SUBSTANTIALLY FROM THE WORK AS ORIGINALLY SHOWN. MARK WHICH DRAWINGS ARE MOST CAPABLE OF SHOWING CONDITIONS FULLY AND ACCURATELY. WHERE SHOP DRAWINGS ARE USED, RECORD A CROSS-REFERENCE AT THE CORRESPONDING LOCATION ON THE CONTRACT DRAWINGS. GIVE ATTENTION TO CONCEALED ELEMENTS THAT WOULD BE DIFFICULT TO MEASURE AND RECORD AT A LATER DATE. MARK RECORD SETS WITH RED ERASABLE PENCIL. USE OTHER COLORS TO DISTINGUISH BETWEEN VARIATIONS IN SEPARATE CATEGORIES OF THE WORK. MARK NEW INFORMATION THAT IS IMPORTANT TO THE OWNER BUT WAS NOT SHOWN ON THE CONTRACT DRAWINGS, DETAILS OR SHOP DRAWINGS. NOTE RELATED CHANGE ORDER NUMBERS WHERE APPLICABLE. NOTE RELATED RECORD DRAWING INFORMATION AND PRODUCT DATA. UPON COMPLETION OF THE WORK, SUBMIT ONE (1) COMPLETE SET OF RECORD DOCUMENTS TO THE CARRIER CONSTRUCTION SUPERVISOR FOR THE OWNER'S RECORDS.
26. A CLOSEOUT BOOK CONTAINING THE FOLLOWING, SHALL BE PROVIDED BY THE CONTRACTOR, AS APPLICABLE:
 - A. AS BUILT DESIGN DRAWINGS
 - B. SWEEP TEST RESULTS
 - C. RESISTIVELY TEST
 - D. PHOTO DOCUMENTATION OF:
 - I. UNDERGROUND CONDUITS AND GROUND RING
 - II. ANTENNA, COAX, JUMPER ATTACHMENTS AND GROUND KIT ATTACHMENTS
 - III. ANTENNA DOWN TILT MEASUREMENT USING AN INCLINOMETER ON THE BACK PLANE OF THE ANTENNA
 - IV. GROUND BAR ATTACHMENTS
 - E. SIGNED OFF PERMIT CARDS
 - F. CERTIFICATE OF OCCUPANCY
 - G. RETURN OF KEYS AND/OR ACCESS AUTHORIZATION
 - H. ORIGINAL BUILDING PERMIT

SITE WORK NOTES

1. SCOPE: CLEARING, GRUBBING, STRIPPING, EROSION CONTROL, SURVEY, LAYOUT, SUB GRADE PREPARATION, FINISH GRADING AND SECURITY FENCE, AS REQUIRED BY CONSTRUCTION DRAWINGS AND DETAIL DRAWINGS.
2. REFERENCES:
 - A. DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS FOR THE STATE IN WHICH THE PROJECT IS LOCATED.
 - B. ASTM (AMERICAN SOCIETY FOR TESTING AND MATERIALS)
 - C. OSHA (OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION)
 - D. AASHTO (AMERICAN ASSOCIATION OF STATE TRANSPORTATION OFFICIALS)
3. INSPECTION AND TESTING:
 - A. FIELD TESTING OF EARTHWORK, AGGREGATE BASE COURSE, COMPACTION AND CONCRETE TESTING SHALL BE PERFORMED BY THE CONTRACTOR'S INDEPENDENT TESTING LAB.
 - B. ALL WORK SHALL BE INSPECTED AND RELEASED BY THE CARRIER CONSTRUCTION SUPERVISOR WHO SHALL CARRY OUT THE GENERAL INSPECTION OF THE WORK WITH SPECIFIC CONCERN TO PROPER PERFORMANCE OF THE WORK AS SPECIFIED AND/OR CALLED FOR ON THE DRAWINGS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO REQUEST TIMELY INSPECTIONS PRIOR TO PROCEEDING WITH FURTHER WORK THAT WOULD MAKE PARTS OF THE WORK INACCESSIBLE OR DIFFICULT TO INSPECT.
4. SITE MAINTENANCE AND PROTECTION:
 - A. PROVIDE ALL NECESSARY JOB SITE MAINTENANCE FROM COMMENCEMENT OF THE WORK UNTIL COMPLETION OF THE CONTRACT.
 - B. CONTACT THE ONE-CALL UTILITY LOCATION SERVICE PRIOR TO ANY EXCAVATING ACTIVITIES TO HAVE LOCATIONS OF UNDERGROUND UTILITIES VERIFIED.
 - C. AVOID DAMAGE TO THE SITE INCLUDING EXISTING FACILITIES, STRUCTURES, TREES AND SHRUBS DESIGNATED TO REMAIN. TAKE PROTECTIVE MEASURES TO PREVENT EXISTING ITEMS THAT ARE NOT DESIGNATED FOR REMOVAL FROM BEING DAMAGED BY THE WORK.
 - D. KEEP SITE FREE OF ALL PONDING WATER.
 - E. CONTRACTOR SHALL PROVIDE ALL EROSION AND SEDIMENTATION CONTROL MEASURES AS REQUIRED BY LOCAL, CITY, COUNTY AND STATE CODES AND ORDINANCES TO PROTECT EMBANKMENTS FROM SOIL LOSS AND TO PREVENT

ACCUMULATION OF SOIL AND SILT IN STREAMS AND DRAINAGE PATHS LEAVING THE CONSTRUCTION AREA. THIS MAY INCLUDE SUCH MEASURES AS SILT FENCES, STRAW BALE SEDIMENT BARRIERS AND CHECK DAMS.

- F. PROVIDE AND MAINTAIN ALL TEMPORARY FENCING, BARRICADES, WARNING SIGNALS AND SIMILAR DEVICES NECESSARY TO PROTECT LIFE AND PROPERTY DURING THE ENTIRE PERIOD OF CONSTRUCTION. REMOVE ALL SUCH DEVICES UPON COMPLETION OF THE WORK.
5. BEFORE STARTING GENERAL SITE PREPARATION ACTIVITIES, INSTALL EROSION AND SEDIMENT CONTROL MEASURES. THE WORK AREA SHALL BE CONSTRUCTED AND MAINTAINED IN SUCH CONDITION THAT IN THE EVENT OF RAIN THE SITE WILL BE WELL DRAINED AT ALL TIMES.
6. ENSURE POSITIVE DRAINAGE DURING AND AFTER COMPLETION OF CONSTRUCTION.
7. PERFORM ALL SURVEY, LAYOUT, STAKING AND MARKING TO ESTABLISH AND MAINTAIN ALL LINES, GRADES, ELEVATIONS AND BENCHMARKS NEEDED FOR EXECUTION OF THE WORK.
8. CLEAR AND GRUB THE AREA WITHIN THE LIMITS OF THE SITE AND ONLY THE IMMEDIATE SURROUNDINGS NECESSARY TO COMPLETE THE WORK. REMOVE TREES, BRUSH, STUMPS, RUBBISH AND OTHER DEBRIS AND VEGETATION RESTING ON OR PROTRUDING THROUGH THE SURFACE OF THE SITE AREA TO BE CLEARED AND GRUBBED.
9. REMOVE FROM THE SITE AND DISPOSE IN AN AUTHORIZED LANDFILL ALL DEBRIS RESULTING FROM CLEARING AND GRUBBING OPERATIONS. BURNING IS NOT PERMITTED.
10. PRIOR TO EXCAVATING, THOROUGHLY EXAMINE THE AREA TO BE EXCAVATED AND/OR TRENCHED TO VERIFY THE LOCATIONS OF FEATURES INDICATED ON THE DRAWINGS, AND ASCERTAIN THE EXISTENCE AND LOCATION OF ANY STRUCTURE, UNDERGROUND STRUCTURE, CULVERT, STREAM CROSSING OR OTHER ITEM NOT SHOWN THAT MIGHT AFFECT OR INTERFERE WITH THE NEW CONSTRUCTION. NOTIFY THE CARRIER CONSTRUCTION SUPERVISOR OF ANY OBSTRUCTIONS THAT WILL PREVENT ACCOMPLISHMENT OF THE WORK AS INDICATED ON THE DRAWINGS.
11. SEPARATE AND STOCKPILE ALL EXCAVATED MATERIALS SUITABLE FOR BACK FILL. ALL EXCESS EXCAVATED, AND UNSUITABLE MATERIALS SHALL BE DISPOSED OF IN AN AREA DESIGNATED BY THE CARRIER CONSTRUCTION SUPERVISOR. (UNSUITABLE MATERIAL MAY BE REQUIRED TO BE REMOVED FROM THE SITE.)



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CABLE, WI 54821
BAYFIELD**

SHEET TITLE:

GENERAL NOTES

SHEET NUMBER:

GN-1

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1. THESE NOTES DESCRIBE THE MINIMUM REQUIREMENT FOR INSTALLATION OF ALL ELECTRICAL SYSTEMS. SUBMITTAL OF BID INDICATES THAT THE CONTRACTOR IS COGNIZANT OF ALL JOB SITE CONDITIONS AND WORK TO BE PERFORMED UNDER THIS CONTRACT.
2. THE PUBLICATIONS LISTED BELOW FORM PART OF THESE NOTES. EACH PUBLICATION SHALL BE THE LATEST REVISION AND ADDENDUM IN EFFECT ON THE DATE THIS SPECIFICATION IS ISSUED FOR CONSTRUCTION, UNLESS NOTED OTHERWISE. EXCEPT AS MODIFIED BY THE REQUIREMENTS SPECIFIED HEREIN, OR THE DETAILS OF THE DRAWINGS, WORK INCLUDED IN THIS SPECIFICATION SHALL CONFORM TO THE APPLICABLE PROVISIONS OF THESE PUBLICATIONS:
 - A. ANSI (AMERICAN NATIONAL STANDARDS INSTITUTE)
 - B. IEEE (INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS)
 - C. NEC (NATIONAL ELECTRICAL CODE), LATEST EDITION
 - D. NEMA (NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION)
 - E. NFPA 70 (NATIONAL FIRE PROTECTION ASSOCIATION)
 - F. OSHA (OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION), INCLUDING ALL APPLICABLE AMENDMENTS
 - G. UL (UNDERWRITERS LABORATORIES)
 - H. APPLICABLE LOCAL CODES AND ORDINANCES
3. THE CONTRACTOR SHALL INSTALL UNDERGROUND ELECTRICAL AND TELEPHONE CONDUITS AND CABLE AS SPECIFIED HEREIN AND AS SHOWN ON THE DRAWINGS.
4. WHEN FINISHED, WORK SHALL BE IN A COMPLETE AND UNDAMAGED STATE, AS REQUIRED IN THE CONTRACT DOCUMENTS.
5. ITEMS SHALL BE NEW AND SHALL BE INSTALLED ONLY IF IN FIRST-CLASS CONDITION.
6. SUBSTITUTIONS FOR MATERIAL WILL BE PERMITTED ONLY BY WRITTEN APPROVAL OF THE CARRIER CONSTRUCTION SUPERVISOR AND BY THE ENGINEER.
7. THE CONTRACTOR SHALL PROVIDE ALL MATERIAL EXCEPT AS SPECIFIED IN THE CONTRACT DOCUMENTS. ALL MATERIAL SHALL BE APPROVED AND LISTED BY OR BEAR THE UL LABEL, AND WILL COMPLY WITH ANSI, IEEE AND NEMA STANDARDS WHERE APPLICABLE.
8. CONDUITS:
 - A. ALL UNDERGROUND CONDUIT SHALL BE SCHEDULE 40 PVC, SIZED AS SHOWN ON THE CONSTRUCTION DRAWINGS.
 - B. ALL EXTERIOR ABOVEGROUND CONDUIT SHALL BE PER LOCAL CODE REQUIREMENTS.
 - C. ALL INTERIOR CONDUIT SHALL BE EMT WITH COMPRESSION-TYPE FITTINGS.
 - D. LIQUID-TIGHT FLEXIBLE METALLIC CONDUIT SHALL BE USED FOR OUTDOOR LOCATIONS WHERE FLEXIBLE CONNECTION IS REQUIRED.
9. CABLES CONDUCTORS FOR GENERAL WIRING SHALL BE NEC STANDARD ANNEALED COPPER WIRE WITH NEC 600-VOLT INSULATION.
 - A. #8 AND LARGER-STRANDED TYPE, THHN OR THWN.
 - B. #10 AND SMALLER-SOLID TYPE THHN OR THWN.
 - C. CONDUCTORS IN CONDUIT IN OR ADJACENT TO HIGH HEAT SOURCE SHALL BE TYPE XHHW.
 - D. CONDUCTORS IN CONDUITS ABOVE ROOF, ON TOP OF ROOF OR INSIDE BUILT-UP ROOFING MATERIAL SHALL BE TYPE XHHW
10. CONVENIENCE OUTLET, UNLESS NOTED OTHERWISE, SURFACE-MOUNTED OUTLETS FOR EXTERIOR LOCATIONS SHALL BE FERALOY, CAD/ZINC ELECTROPLATED WITH THREADED HUBS OR CONDUIT ENTRANCES DRILLED AND TAPPED. ALL COVERS SHALL BE SELF-CLOSING AND GASKETED. SURFACE MOUNTED OUTLETS FOR INTERIOR LOCATIONS SHALL BE GALVANIZED, PRESSED STEEL WITH COVER PLATE, SIERRA PLASTIC STYLE, IVORY COLOR.
11. COAXIAL CABLE SUPPORTS 1. ALL WAVE GUIDE SUPPORTS SHALL BE MANUFACTURED TO MEET ALL COAX MINIMUM BENDING REQUIREMENTS. SUPPORTS SHALL BE PROVIDED EVERY 3'-0" ON CENTER.
12. BEFORE LAYING OUT WORK, EXERCISE PROPER PRECAUTION TO VERIFY EACH MEASUREMENT.
13. USE EXTREME CAUTION BEFORE EXCAVATING IN EXISTING AREAS TO LOCATE EXISTING UNDERGROUND SERVICES.
14. A VISUAL CHECK OF ELECTRICAL AND TELEPHONE CABLES, CONDUITS AND OTHER ITEMS SHALL BE MADE BY A CARRIER CONSTRUCTION SUPERVISOR BEFORE THESE ITEMS ARE PERMANENTLY INSTALLED.
15. THE CONTRACTOR SHALL NOTIFY THE CARRIER CONSTRUCTION SUPERVISOR 24 HOURS PRIOR TO TRENCH BACK FILL.
16. TRENCHING, BACK FILLING, BEDDING AND COMPACTING SHALL COMPLY WITH SITE WORK SPECIFICATIONS.
17. DIG TRENCHES TO THE REQUIRED DEPTH AS SHOWN ON THE DRAWINGS WITHOUT POCKETS OR DIPS. REMOVE LARGE STONES FROM THE BOTTOM OF THE TRENCH AND FIRMLY TAMP LOOSE FILL IN THE BOTTOM BEFORE CONDUIT IS LAID.
18. INSTALL UNDERGROUND CONDUIT WITH A MINIMUM 3-INCH TO 100-FOOT SLOPE OR TO A SLOPE SHOWN ON THE DRAWINGS.
19. UNLESS SHOWN OTHERWISE ON THE DRAWINGS, TERMINATE AND CAP ALL STUB-UPS 12 INCHES ABOVE FINISHED GRADE ELEVATION.
20. WHEREVER CONDUITS CROSS UNDER ROADWAYS, USE GALVANIZED RIGID STEEL CONDUITS IN ALL CASES, EXTENDING 5 FEET BEYOND THE EDGE OF THE ROAD BED. MINIMUM DEPTH FOR CONDUIT SHALL BE 4 FEET BELOW ROADWAY GRADE.
21. MARK UNDERGROUND CONDUITS WITH A 6-INCH WIDE RED POLYETHYLENE TAPE BURIED 6 INCHES UNDER THE SURFACE DIRECTLY OVER THE CONDUITS. MARK THE TAPE THUS: CAUTION-BURIED ELECTRICAL CABLE.
22. FOR SEALING CONDUITS, USE ONLY NON-THERMOPLASTIC COMPOUNDS SUCH AS J.M. DUXSEAL, OR AN CARRIER-APPROVED SUBSTITUTE. THE COMPOUND SHALL HAVE NO EFFECT ON RUBBER OR RUBBER-LIKE INSULATIONS, LEAD, ALUMINUM OR FERROUS ALLOYS; IT SHALL BE INSOLUBLE IN WATER AND WITHSTAND MAXIMUM TEMPERATURE RANGES OF THE LOCALITY.
23. COAXIAL - REFER TO ANTENNA AND COAXIAL CABLE INSULATION PROCEDURES.
24. ANTENNA - REFER TO ANTENNA AND COAXIAL CABLE INSULATION PROCEDURES.
25. LNA/MHA - REFER TO ANTENNA AND COAXIAL CABLE INSULATION PROCEDURES.

GROUNDING NOTES

1. THIS SPECIFICATION PRESCRIBES THE REQUIREMENTS FOR FURNISHING, INSTALLATION AND TESTING OF THE GROUNDING CABLE, CONNECTORS AND ASSOCIATED COMPONENTS AS INDICATED ON THE DRAWINGS.
2. APPLICATIONS OF ELECTRICAL GROUNDING AND BONDING WORK SPECIFIED IN THIS SPECIFICATION INCLUDE THE FOLLOWING:
- A. FENCE AND GATE POSTS
 - B. ELECTRICAL POWER SYSTEMS
 - C. GROUNDING ELECTRODES
 - D. GROUND BUS BAR
 - E. SERVICE EQUIPMENT
 - F. ENCLOSURES
 - G. MONOPOLE / LATTICE TOWER
 - H. ICE BRIDGE
3. REFERENCES: THE PUBLICATIONS LISTED BELOW FORM PART OF THESE DRAWINGS. EACH PUBLICATION SHALL BE THE LATEST REVISION AND ADDENDUM IN EFFECT ON THE DATE THESE DRAWINGS ARE ISSUED FOR CONSTRUCTION, UNLESS NOTED OTHERWISE. EXCEPT AS MODIFIED BY THE REQUIREMENTS SPECIFIED HEREIN, OR THE DETAILS OF THE DRAWINGS, WORK INCLUDED IN THESE DRAWINGS SHALL CONFORM TO THE APPLICABLE PROVISIONS OF THESE PUBLICATIONS.
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 - D. NEMA (NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION)
 - E. NESC (NATIONAL ELECTRICAL SAFETY CODE), LATEST EDITION
 - F. OSHA (OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION)
 - G. UL (UNDERWRITERS' LABORATORIES)
 - H. APPLICABLE LOCAL CODES AND ORDINANCES
4. MATERIALS: EXCEPT AS OTHERWISE INDICATED, PROVIDE ELECTRICAL GROUNDING AND BONDING SYSTEMS INDICATED; WITH ASSEMBLY OF MATERIAL, INCLUDING, BUT NOT LIMITED TO, GROUNDING ELECTRODES, BONDING JUMPER AND ADDITIONAL ACCESSORIES NEEDED FOR A COMPLETE INSTALLATION. WHERE MORE THAN ONE TYPE OF COMPONENT PRODUCT MEETS INDICATED REQUIREMENTS, SELECTION IS INSTALLER'S OPTION. WHERE MATERIALS OR COMPONENTS ARE NOT INDICATED, PROVIDE PRODUCTS WHICH COMPLY WITH NEC, UL, AND IEEE REQUIREMENTS AND WITH ESTABLISHED INDUSTRY STANDARDS FOR THOSE APPLICATIONS INDICATED.
- A. GROUNDING:
- I. THE EQUIPMENT SHALL BE GROUNDED AS FOLLOWS, AS SHOWN ON THE DRAWINGS AND IN COMPLIANCE WITH NEC ARTICLE 250 AND STATE AND LOCAL CODES.
 - II. GROUND RODS AND QUANTITY SHOWN ON THE DRAWINGS ARE DIAGRAMMATIC. THE CONTRACTOR SHALL PERFORM A GROUND-RESISTANCE-TO-EARTH TEST. SHOULD THE INSTALLATION HAVE A RESISTANCE OF 5 OHMS OR MORE, CONTRACTOR SHALL INSTALL MORE GROUND RODS AS NECESSARY SO THAT THE OVERALL GROUND-TO-EARTH RESISTANCE IS LESS THAN 5 OHMS.
 - III. INSTALL ELECTRICAL GROUNDING AND BONDING SYSTEMS AS INDICATED, IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS, NEC'S "STANDARD OF INSTALLATION," AND IN ACCORDANCE WITH RECOGNIZED INDUSTRY PRACTICES TO ENSURE THAT PRODUCTS COMPLY WITH REQUIREMENTS.
 - IV. COORDINATE WITH OTHER ELECTRICAL WORK AS NECESSARY TO INTERFACE INSTALLATION OF ELECTRICAL GROUNDING AND BONDING SYSTEMS.
 - V. INSTALL GROUND CONDUCTORS A MINIMUM OF 36 INCHES BELOW FINISHED GRADE WHICH ENIRCLE THE TOWER AND EQUIPMENT, AND ARE CONNECTED TO EACH DRIVEN GROUND ROD. GROUND TRENCH SHALL BE AT LEAST 24 INCHES AWAY FROM FOUNDATIONS.
 - VI. TIGHTEN GROUNDING AND BONDING CONNECTORS, INCLUDING SCREWS AND BOLTS, IN ACCORDANCE WITH MANUFACTURER'S PUBLISHED TORQUE TIGHTENING VALUE FOR CONNECTORS AND BOLTS. WHERE MANUFACTURER'S TORQUEING REQUIREMENTS ARE NOT INDICATED, TIGHTEN CONNECTIONS TO COMPLY WITH TIGHTENING TORQUE VALUE SPECIFIED IN UL 486A TO ASSURE PERMANENT AND EFFECTIVE GROUNDING.
 - VII. APPLY CORROSION-RESISTANT FINISH (NO-OX OR CARRIER-APPROVED EQUIVALENT) TO FIELD-CONNECTIONS, AT COPPER GROUND BARS AND PLACES WHERE FACTORY APPLIED PROTECTIVE COATING HAVE BEEN DESTROYED, OR ARE SUBJECTED TO CORROSIVE AND/OR OXIDATION PROCESS.
 - VIII. ON EXISTING LATTICE TOWERS, WATER TOWERS AND ROOF TOPS, WHEN A NEW GROUNDING SYSTEM IS INSTALLED, THE CONTRACTOR SHALL TIE THE NEW GROUND SYSTEM TO THE EXISTING WATER TOWER, LATTICE TOWER STRUCTURAL STEEL OR BUILDING STRUCTURAL STEEL AS THE CASE MAY BE AT A MINIMUM OF ONE LOCATION SO THAT THEY ARE AT THE SAME VOLTAGE POTENTIAL.
 - IX. ALL TOWER AND TOP GROUND WIRES SHALL BE SUPPORTED EVERY TWO FEET MAXIMUM.
- B. GROUND RODS:
- I. GROUND RODS SHALL BE 5/8" DIAMETER WITH 8'-0" EMBEDMENT MIN., COPPER CLAD DRIVEN ROD(S).
 - II. GROUND ROD(S) SHALL BE LOCATED AT THE PERIMETER OF EQUIPMENT AS TO CREATE A GROUND RING AS SHOWN ON THE DRAWINGS.
 - III. GROUND ROD(S) SHALL BE SPACED AT A MINIMUM OF 8'-0" AND A MAXIMUM SPACING OF 10'-0" ON CENTER.
 - IV. GROUND RODS SHALL BE BURIED BELOW THE FROSTLINE. AT NO TIME SHALL THIS DEPTH BE LESS THAN 18" BELOW FINISHED GRADE.
 - V. GROUND RODS WHICH CANNOT BE DRIVEN STRAIGHT DOWN THE ENTIRE 10'-0", SHALL BE DRIVEN AT AN ANGLE NOT GREATER THAN 45 DEGREES (NEC 250-83 AND 250-84).
 - VI. GROUND ROD LOCATIONS SHALL BE NOTED ON THE AS-BUILT DRAWING

- COMPLETE WITH DIMENSIONS.
- VII. PROVIDE GROUND TEST WELLS SHOWN ON THE CONSTRUCTION DRAWINGS.
- C. GROUND CONDUCTOR:
- I. ALL DIRECT BURIED GROUND CONDUCTORS SHALL BE TINNED SOLID (#2 AWG) WIRE. BURIED GROUND CONDUCTOR SHALL BE INSTALLED AT MINIMUM DEPTH OF 36" BELOW GRADE.
 - II. ALL SUB GRADE GROUND CONNECTIONS SHALL BE MADE USING EXOTHERMIC WELD PROCESS. CONNECTIONS SHALL INCLUDE ALL CABLE TO CABLE SPLICES, TEES AND ALL GROUND ROD CONNECTIONS. MOLD, WELD KITS, ETC., SHALL BE MANUFACTURED BY CADWELD AND SHALL BE INSTALLED AS PER THE MANUFACTURER'S INSTRUCTIONS.
 - III. GROUND CONDUCTORS SHALL BE ROUTED IN THE SHORTEST AND C STRAIGHTEST DISTANCES POSSIBLE TO MINIMIZE TRANSIENT VOLTAGE RISES. CONDUCTORS SHALL BE INSTALLED AS FOLLOWS:
 - IV. ALL GROUND CONDUCTORS SHALL FOLLOW A CONTINUOUS DOWNWARD PATTERN TO THE GROUND SOURCE. (NEVER RUN GROUND CONDUCTOR IN AN UPWARD DIRECTION.)
 - V. CONDUCTORS SHALL BE INSTALLED WITH A MINIMUM OF 12-INCH MINIMUM BENDING RADIUS.
 - VI. WHEN THE MINIMUM BENDING RADIUS CANNOT BE ACHIEVED, GROUND CABLES SHALL BE ROUTED AT 90-DEGREE BENDS WITH THE USE OF EXOTHERMIC CONNECTIONS AT 90 DEGREES, WITH THE INTENT IS TO ELIMINATE THE CABLE BEND RADIUS AND REPLACE THE RADIUS WITH AN EXOTHERMIC CONNECTION.
5. PREPARATION:
- A. ALL SURFACES TO WHICH GROUND CONNECTIONS WILL BE MADE SHALL BE FREE OF PAINT, GALVANIZING DIRECT CORROSION, ETC.
 - B. ALL METAL SURFACES EXPOSED ON GROUNDING SHALL BE EITHER COLD GALVANIZE, OR PAINTED TO MATCH ORIGINAL SURFACE.
6. EXAMINE AREAS AND CONDITIONS UNDER WHICH ELECTRICAL GROUNDING AND BONDING CONNECTIONS ARE TO BE MADE AND NOTIFY CARRIER CONSTRUCTION SUPERVISOR AND ENGINEER OF RECORD IN WRITING OF CONDITIONS DETRIMENTAL TO PROPER COMPLETION OF WORK. DO NOT PROCEED WITH WORK UNTIL UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED. THE CONTRACTOR SHALL NOTIFY THE CARRIER CONSTRUCTION SUPERVISOR A MINIMUM OF 24 HOURS PRIOR TO TRENCH BACK FILL. ALL WORK DONE BELOW FINISHED GRADE SHALL BE INSPECTED BY THE CONSTRUCTION SUPERVISOR DURING THAT PERIOD.
7. GROUND TESTING:
- A. THE CONTRACTOR SHALL TEST THE GROUND ELECTRODE ROD RESISTANCE IN ACCORDANCE WITH THE METHODS OF MEASUREMENT DEFINED IN THE FALL OF POTENTIAL METHOD.
 - B. TEST INSTRUMENTS SHALL OPERATE AT A FREQUENCY OTHER THAN 60 HERTZ AND SHALL CONTAIN STRAY CURRENT AND DC FILTERS, FAULT CURRENT PROTECTION AND HAVE SENSITIVITY TO OPERATE A LOW SIGNAL STRENGTH.
 - C. PRIOR TO TESTING, THE CONTRACTOR SHALL DE-ENERGIZE ALL POWER SOURCES, DISCONNECT THE ELECTRODE CONDUCTOR FROM THE GROUND ROD, WEAR HIGH VOLTAGE RUBBER SAFETY GLOVES.
 - D. GROUND TESTS ARE TO BE PERFORMED BY QUALIFIED PERSONS FAMILIAR WITH THE CONSTRUCTION AND OPERATION OF THE EQUIPMENT AND THE HAZARDS INVOLVED.
 - E. AN INDEPENDENT, APPROVED OUTSIDE FIRM SHALL PERFORM THE GROUND TEST AS OUTLINED. ALL TEST RESULTS SHALL BE FORWARDED TO THE CARRIER CONSTRUCTION SUPERVISOR FOR APPROVAL.

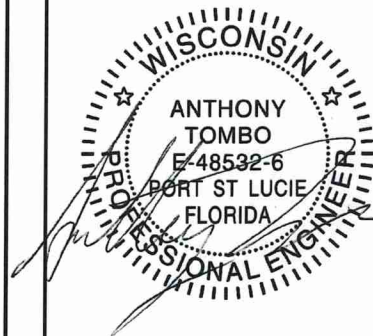


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8000 WEST 78TH STREET
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OFFICE: 612.701.2069



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REVISIONS			
REV	DATE	DESCRIPTION	INT
0	12/29/21	100% CONSTRUCTION	JAS
B	12/08/21	ISSUED FOR REVIEW 90%	JHT
A	12/02/21	ISSUED FOR REVIEW 90%	JHT



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SITE INFORMATION:

T-MOBILE SITE #:
A1N0961A

T-MOBILE SITE NAME:
CABLE WI-TELEMARK

**15143 NORDMORE ROAD
CABLE, WI 54821
BAYFIELD**

SHEET TITLE:

GENERAL NOTES

SHEET NUMBER:

GN-2

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DISCLAIMER:

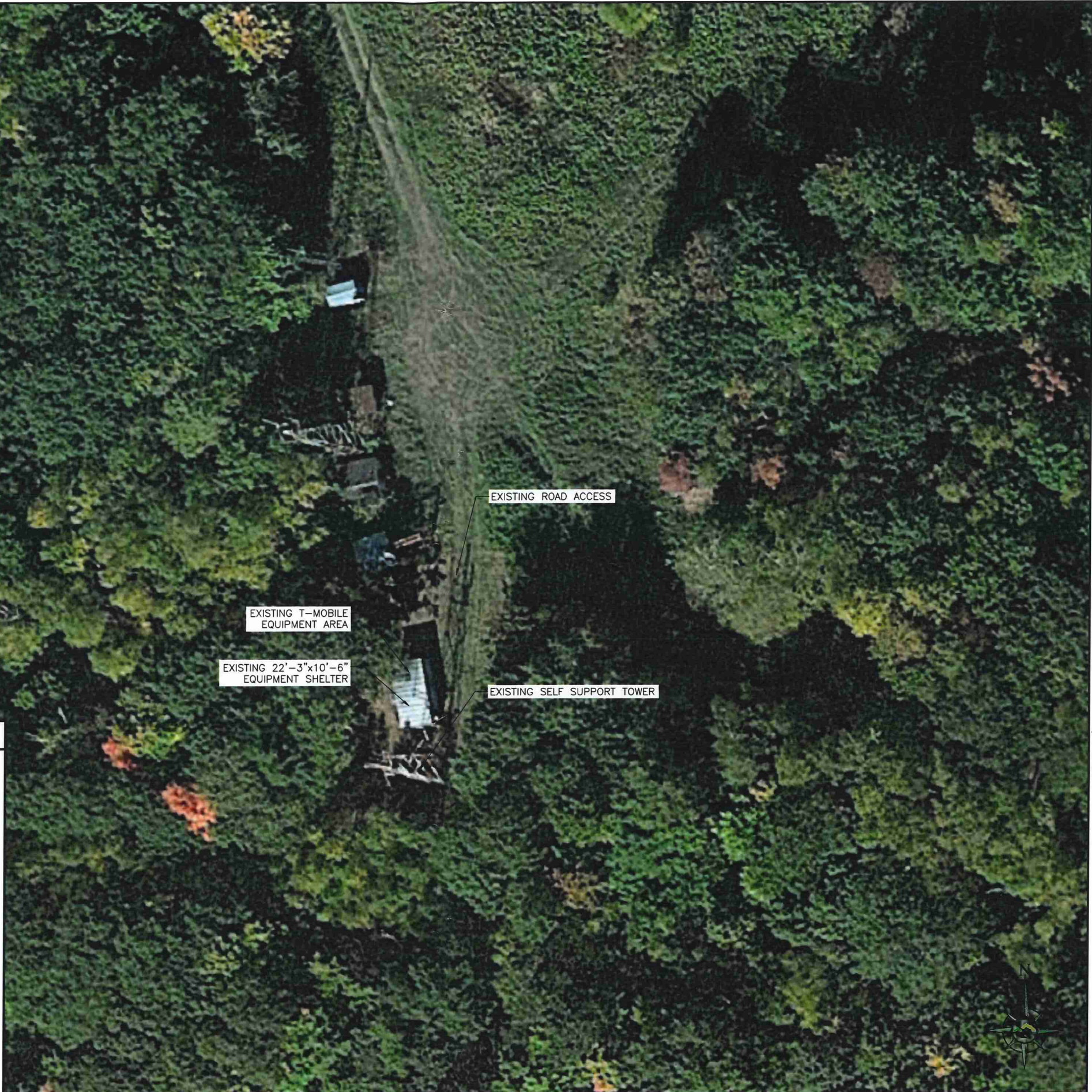
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SITE OVERVIEW

2



OVERALL SITE PLAN



SCALE: N.T.S.

1

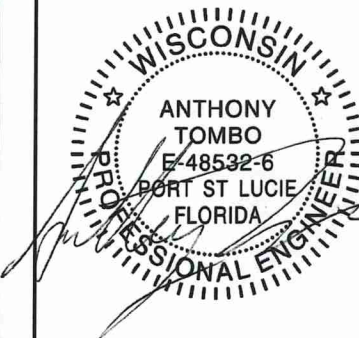
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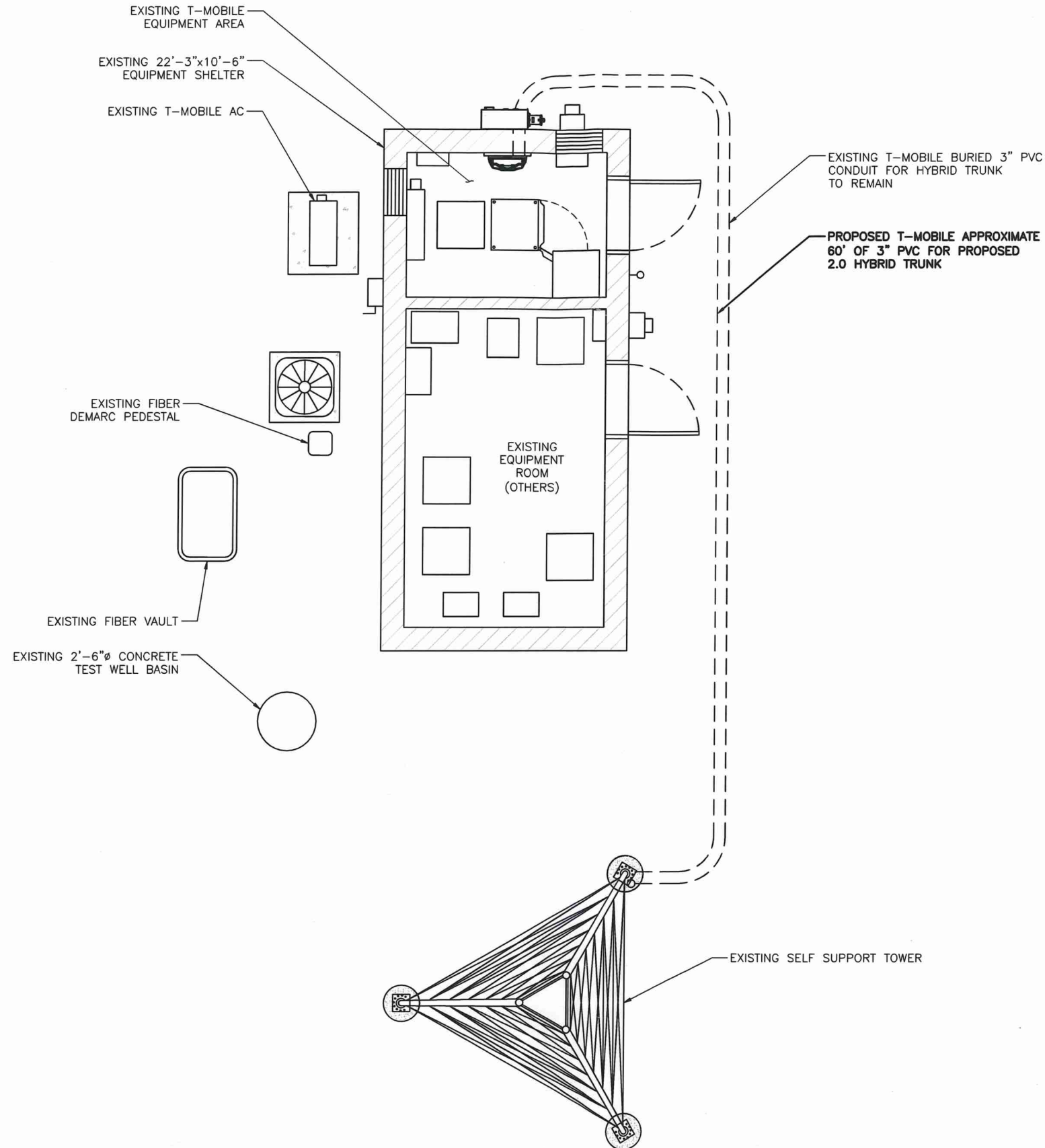
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SHEET TITLE:
OVERALL SITE PLAN

SHEET NUMBER:
C-1

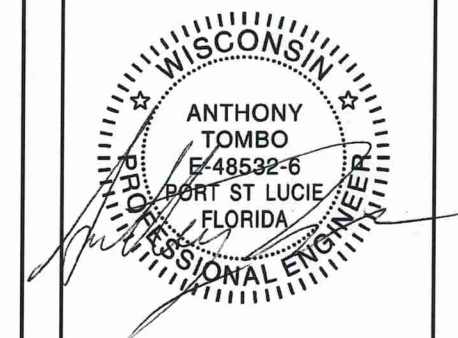
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EQUIPMENT TO BE REMOVED:
(1) FSMF, (1) 1.0 COVP, (1) SSC, (1) FLEXI TABLE, AND
(1) CSR 7705 SAR A.



1

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C-1.1

1



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GROUND MOUNTED EQUIPMENT:

CHANGES ARE TO BE MADE TO GROUND MOUNTED EQUIPMENT AS PART OF THE ANCHOR RFDS.

PROPOSED EQUIPMENT:

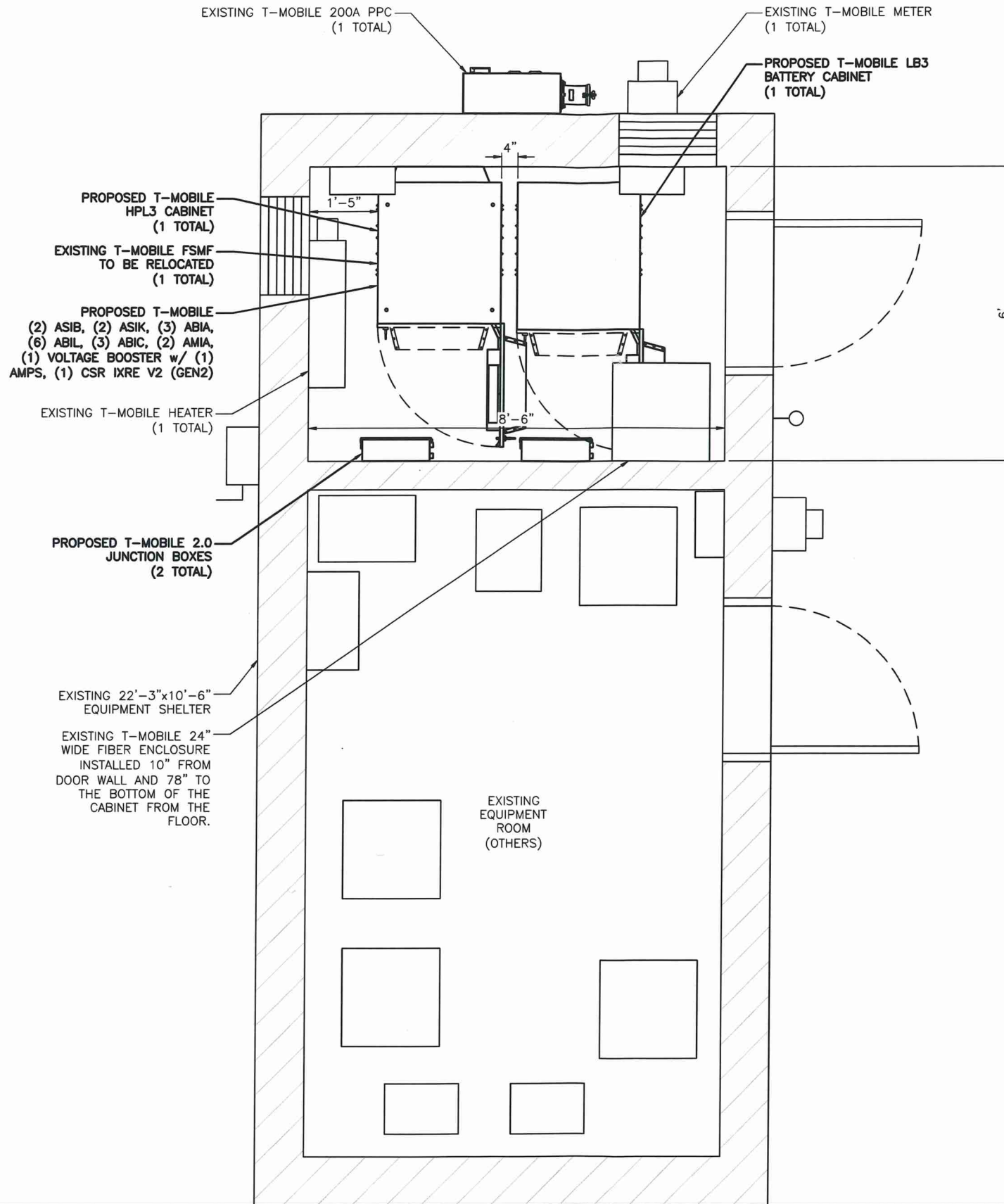
(2) ASIB, (2) ASIK, (3) ABIA, (6) ABIL, (3) ABIC, (2) AMIA, (1) VOLTAGE BOOSTER w/ (1) AMPS, (1) CSR IXRE V2 (GEN2), (1) LB3 BATTERY CABINET, (1) HPL3 CABINET, AND (2) HCS 2.0 JUNCTION BOXES.

RELOCATE EQUIPMENT:

(1) FSMF.

EQUIPMENT TO BE REMOVED:

(1) FSMF, (1) 1.0 COVP, (1) SSC, (1) FLEXI TABLE, AND (1) CSR 7705 SAR A.



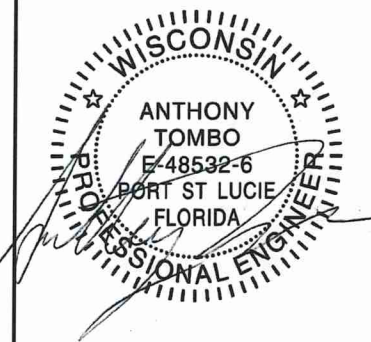
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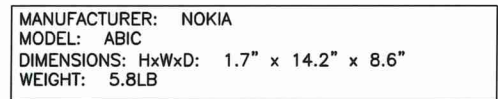
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PROPOSED
EQUIPMENT PLAN

SHEET NUMBER:

C-2.1

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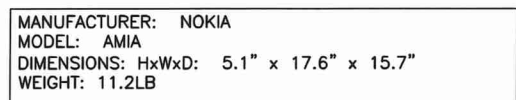
SCALE: N.T.S. 5

MANUFACTURER: NOKIA
MODEL: ABIA
DIMENSIONS: HxWxD: 1.1" x 14.2" x 8.6"
WEIGHT: 4.6LB

SCALE: N.T.S. **3**

MANUFACTURER: NOKIA
MODEL: ASIK
DIMENSIONS: HxWxD: 1.9" x 8.6" x 14.8"
WEIGHT: 6.6LB

SCALE: N.T.S.



SCALE: N.T.S.	6
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MANUFACTURER: NOKIA
MODEL: ABIL
DIMENSIONS: HxWxD: 1.9" x 8.6" x 14.8"
WEIGHT: 6.6LB

SCALE: N.T.S. 4

MANUFACTURER: NOKIA
MODEL: ASIB
DIMENSIONS: HxWxD: 1.7" x 8.6" x 14.2"
WEIGHT: 6.4LB

SCALE: N.T.S.

C-4



MANUFACTURER: RAYCAP
MODEL: BOTTOM JUNCTION BOX
WEIGHT: 21.9 LB
DIMENSIONS: HxWxD: 14" x 16" x 8"

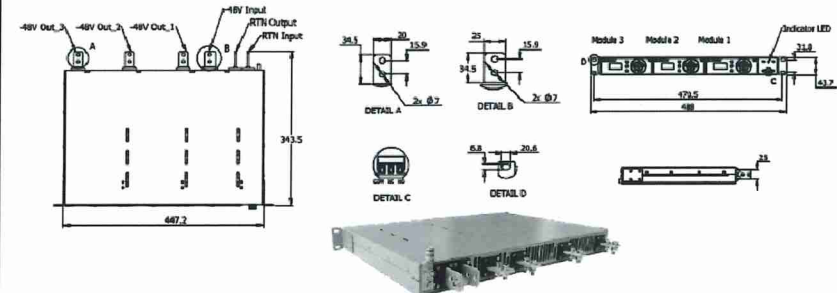


Rank	3 PowerPro Modules
Medium capacity	200 A
Total power	192 kW
Total maximum output current	500 A
Total output voltage range in modules @ P _{max}	48 V to 32 Vdc
Combined output voltage range	48 V to 32 Vdc
Combined efficiency (2 modules)	89%
Electrical Specification (per module)	
Input voltage range	40 to 48 Vdc
Max input current	100 A
Voltages	90%
Output voltage range	48 to 32 Vdc
Output current max	150A
Standby power	5.5 W
Output voltage range @ P _{max} max in 10	48V mvp

Environmental Specification	Mechanical Specification
Operating temperature	-20 to +75 °C
Storage temperature	-30 to +80 °C
	Weight (each)
	343.5 mm
	Net weight (each)
	5.1 kg
	Depth (module)
	174 mm
	Height (module)
	41 mm
	Width (module)
	130.2 mm
	Weight (module)
	0.975 kg
	Coating
	Dynamic Ventilation

Standard's Compliance
UL #0350
Eh 55032 (EMC)
Compliance Certificate
CE, UL (Pending)

Dimensional Drawings (in mm)



NOT USED

5

JUNCTION BOX DETAIL AT PLATFORM

SCALE: N.T.S.

3

VOLTAGE BOOSTER INFORMATION

SCALE: N.T.S.

1



Parameters	7250 IXR-c V2
Height / RU	1 RU
Forwarding Capacity (FD)	300Gbps
Temperature Range	-40°C to 65°C
10G Port Count	24p SFP/SFP+
25G Port Count	8p SFP28/SFP+
100G Port Count	2p QSFP28
Power Supply	AC/DC 300W
Timing	Software support Built-in GNSS available in end of 2020

NOT USED

6

NOT USED

4

7250 IXR-E V2 INTERCONNECT ROUTER DETAIL

SCALE: N.T.S.

2



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POWDER RIVER
Development Services, LLC

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CABLE, WI 54821
BAYFIELD**

SHEET TITLE:

EQUIPMENT DETAILS

SHEET NUMBER:

C-5



Specifications

Model LB3 (Large Battery 3 Cabinet)

1 General		
Construction	Aluminium enclosure	
Dimensions	30 x 72 x 35 in. (381 x 1828x 889mm).	
(W x H x D)	Depth with Door: 41.2 in. (1047mm)	
Weight	~540 lbs (~245kg) (without batteries)	
Internal rack dimension	4 battery trays to support up to 4 strings 210Ah batteries	
Mounting options	Pad-mount, plinth option	
Finish	Polyester Power Paint (Tan)	
Safety	UL Listed , IEC / EN 60950	
2 Environment		
Operating temperature	-40°C to +50°C (-40°F to +122°F) with solar load	
Protection class	IP55 designed to GR-487	
Acoustics	65dBA	
Humidity (relative)	95%, non-condensing (Max.)	
3 Thermal Management		
Cooling Equipment:	Direct Air Cooling	
Heating Equipment:	Forced air heating (1) 1000W AC heaters	
4. Equipment		
Cable entry	Knock-out plate on each upper side wall Additional knockouts each side	
Door latch	3 point latching, 5/16 nut driver tool, pad-locking capability	
Primary ground	10 double-hole 1/4"-20 threaded holes on 5/8" center ground bar	
Lifting Ears	4 Lifting Tabs	
Plinth	Optional 6" plinth available	
Standard equipment	AC Load Center: 30A heater breaker Left or Right side AC entry options AC Surge Protection (option) DC Load Center: 600A bulk feed bus bar (4) 200A bolt in battery breakers (4) 2-hole lug landings,(2 output/2 input from second battery cabinet) Temp Probes Battery Trays: (4) battery trays (4) -48V battery strings (210Ah max each) Connection kit: (1) DC 10A Breaker supplied (install onto HPL3 Power Cabinet) LED interior cabinet light (2) DC powered Axial fans with (1) F5 Filters	
	Front Door:	
	Door intrusion alarm	
	(1) 1000W AC powered heaters	
	5. Ordering information	
	Cabinet	ESOF015-ECV04 Large Battery 3 (LB3) Cabinet
	Plinth, 6"	37993318816900-S Plinth for V1/V2, HPL2, HPL3, LB2 and LB3

*All specifications are subject to change without prior notice.

Delta Group Website:
www.deltaww.com

Product Website:
www.deltapowersolutions.com

United States of America & Canada:
Delta Electronics (USA) Inc.
2925 E. Plano Parkway
Plano, TX (Texas) 75074

Sales and Orders:
DEUSTPS.Sales@deltaww.com
DEUSTPS.Orders@deltaww.com

Field Support:
1-877-DELTA-08 option 3
(877-335-8208 option 3)
DEUSTPS.Support@deltaww.com

Installation Services:
DEUSTPS.Services@deltaww.com

RMA:
DEUSTPS.RMA@deltaww.com



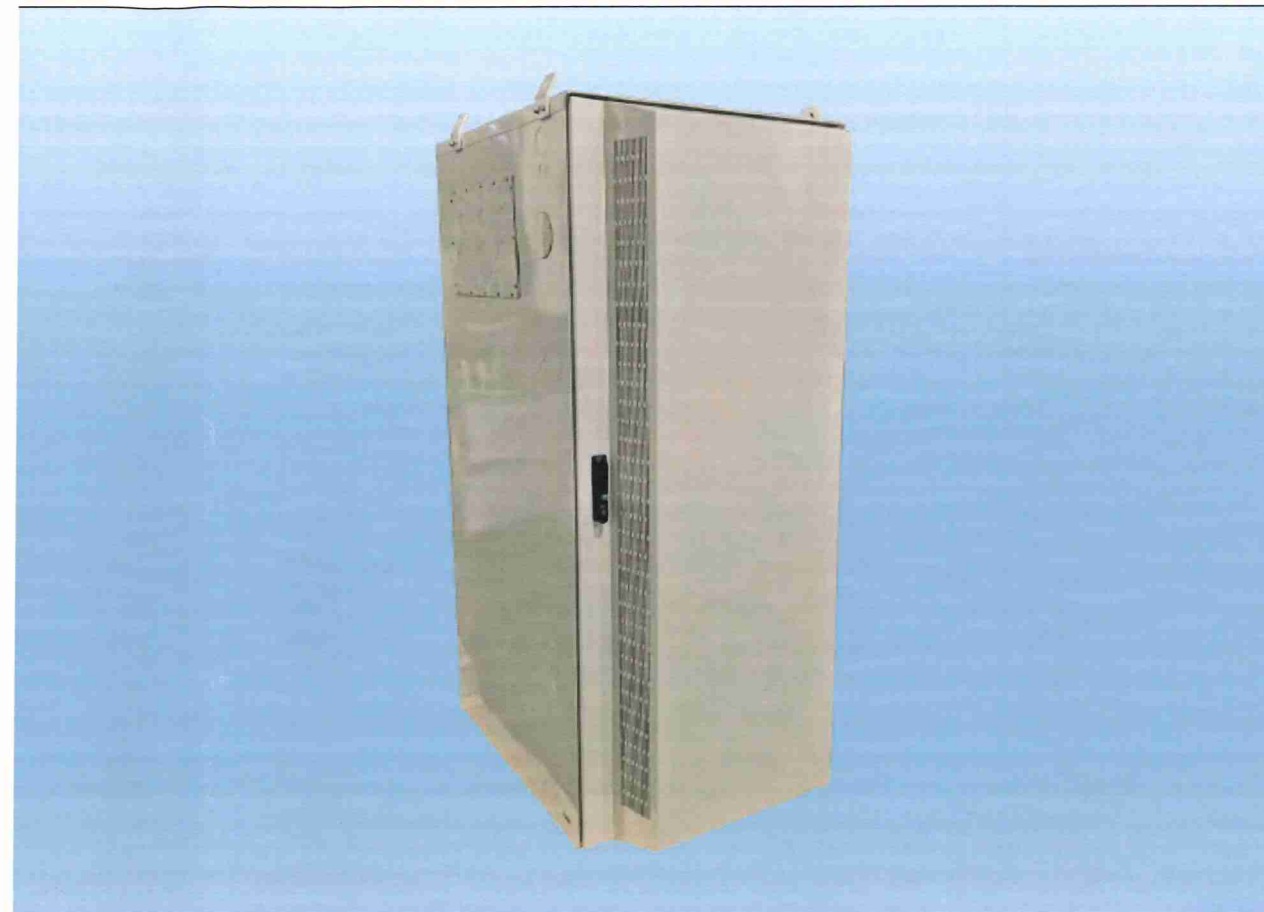
www.deltaww.com

Large Battery 3 Cabinet

Product Features

Compact design for battery strings:

- Direct air cooling solution
- Supports four strings of -48V VRLA batteries up to 210Ah
- 600A rated bus bar with 200A breaker per string
- Bulk Input / Output with ability to daisy chain cabinets
- Front to Front Air Flow
- Corrosion resistant aluminum construction
- Powder coated high gloss finish
- Designed to meet GR-487



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SHEET TITLE:

EQUIPMENT DETAILS

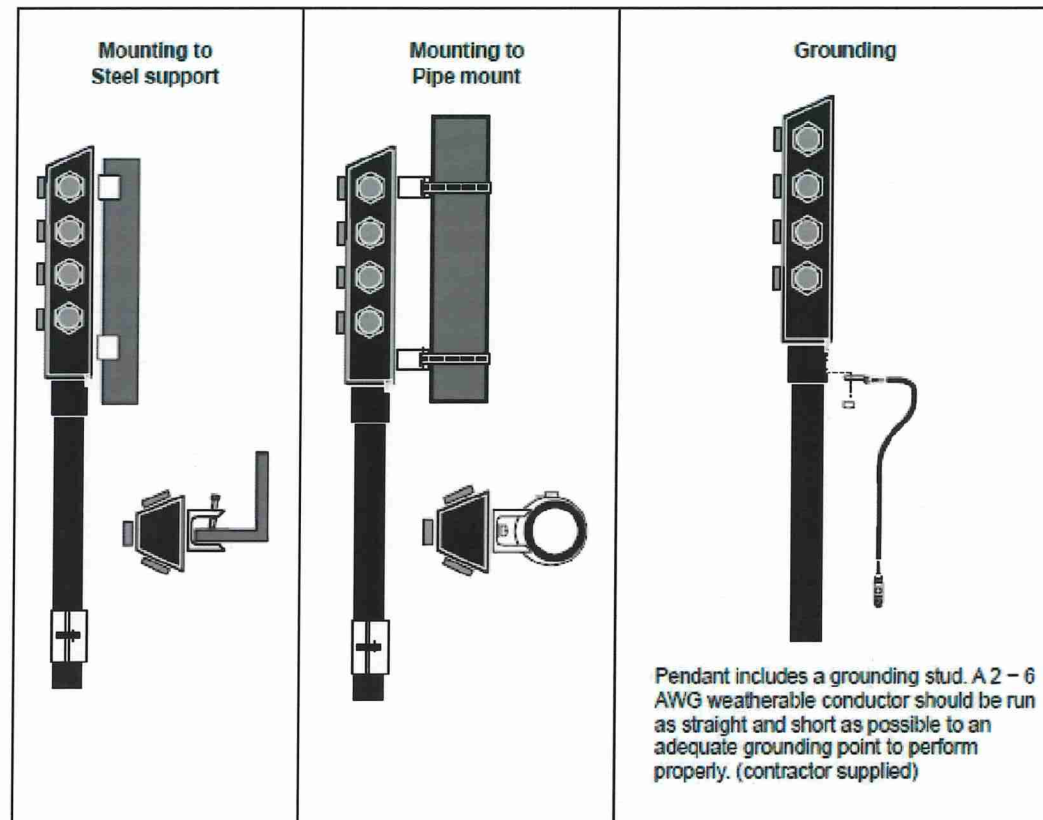
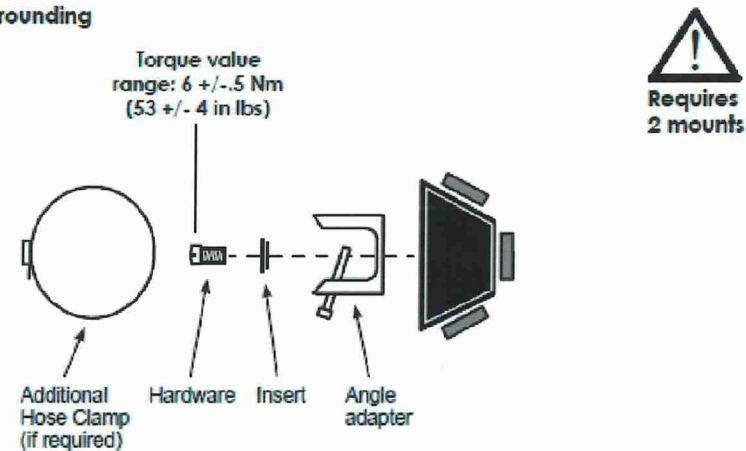
SHEET NUMBER:

C-8

Technical Publication



Section 4: Mounting / Grounding



Visit www.commscope.com for complete specifications on all the products listed

Bulletin # JT27406 Rev. C

7

Technical Publication



Section 2: General Specifications

Cable Type	FD2606-24S5-XXX
Brand	HELIAX® FiberFeed®
Center Conductor Gauge	6 AWG
Conductors, quantity	6
Total Fiber Quantity	24
Shielding Type	Corrugated aluminum
Fiber Type	Band insensitive single mode fiber (G.657.A2)
Construction Type	Direct Breakout

Dimensions

Cable Weight	1450.0 kg/km 970.0 lbs/kft
Diameter Over Jacket	30.50 mm 1.20 in
Breakout Length, Fiber, end 1	HQLC Connectors
Breakout Length, Power, end 1	HQLC Connectors
Breakout Length, Fiber, end 2	826 mm 33 in
	775 mm 31 in
Breakout Length, Power, end 2	610 mm 24 in

Physical Specifications

Minimum Bend Radius, loaded	609.6 mm 24 in
Minimum Bend Radius, unloaded	304.8 mm 12 in
Tensile Load, long term, maximum	1068 N 240 lbf
Tensile Load, short term, maximum	3559 N 800 lbf

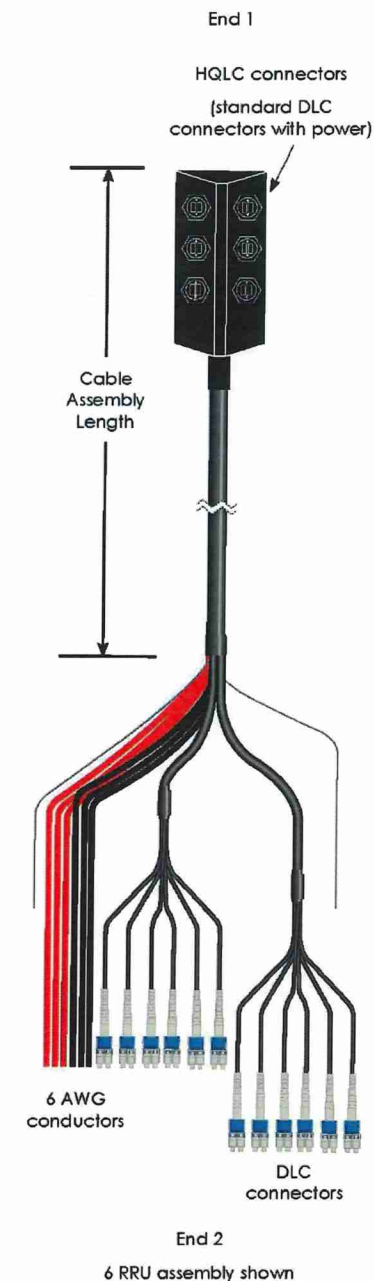
Cable Type	FD21206-48S55-XXX
Brand	HELIAX® FiberFeed®
Center Conductor Gauge	6 AWG
Conductors, quantity	12
Total Fiber Quantity	48
Shielding Type	Corrugated aluminum
Fiber Type	Bend insensitive single mode fiber (G.657.A2)
Construction Type	Direct Breakout

Dimensions

Cable Weight	2544.0 kg/km 1710.0 lb/kft
Diameter Over Jacket	39.38 mm 1.55 in
Breakout Length, Fiber, end 1	HQLC Connectors
Breakout Length, Power, end 1	HQLC Connectors
Breakout Length, Fiber, end 2	826 mm 33 in
	775 mm 31 in
Breakout Length, Power, end 2	610 mm 24 in

Physical Specifications

Minimum Bend Radius, loaded	787.4 mm 31.0 in
Minimum Bend Radius, unloaded	472.4 mm 18.6 in
Tensile Load, long term, maximum	801 N 180 lbf
Tensile Load, short term, maximum	2669 N 600 lbf



Visit www.commscope.com for complete specifications on all the products listed

Bulletin # 7727406 Rev C

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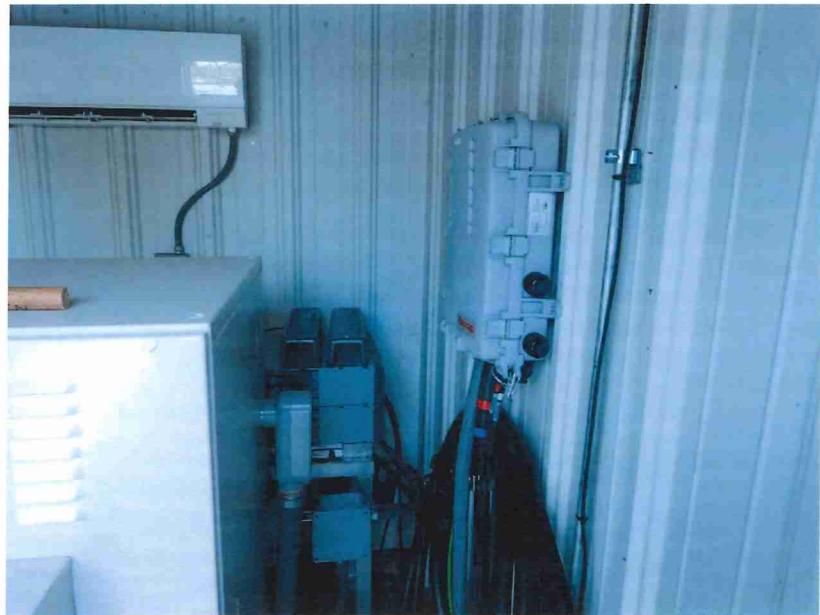
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CABLE & PENDANT SPECIFICATIONS

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C-9

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SITE PHOTO

5



SITE PHOTO

3



SITE PHOTO

1



SITE PHOTO

6



SITE PHOTO

4



SITE PHOTO

2



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EDINA, MN 55439
OFFICE: 612.701.2069



COA #:	3588-11
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REVISIONS			
REV	DATE	DESCRIPTION	INT
0	12/29/21	100% CONSTRUCTION	JAS
B	12/08/21	ISSUED FOR REVIEW 90%	JHT
A	12/02/21	ISSUED FOR REVIEW 90%	JHT

**FOR
REFERENCE
ONLY**

THESE PLANS AND SPECIFICATIONS, AS INSTRUMENTS OF SERVICE, ARE AND SHALL REMAIN THE PROPERTY OF POWDER RIVER DEVELOPMENT SERVICES, LLC WHETHER THE PROJECTS FOR WHICH THEY ARE MADE ARE EXECUTED OR NOT. THESE DRAWINGS AND SPECIFICATIONS SHALL NOT BE USED BY ANY PERSON OR ENTITY ON OTHER PROJECTS WITHOUT PRIOR WRITTEN CONSENT OF THE ENGINEER.

SITE INFORMATION:
T-MOBILE SITE #:
A1N0961A

T-MOBILE SITE NAME:
CABLE WI-TELEMARK

**15143 NORDMORE ROAD
CABLE, WI 54821
BAYFIELD**

SHEET TITLE:

SITE PHOTOS

SHEET NUMBER:

C-10

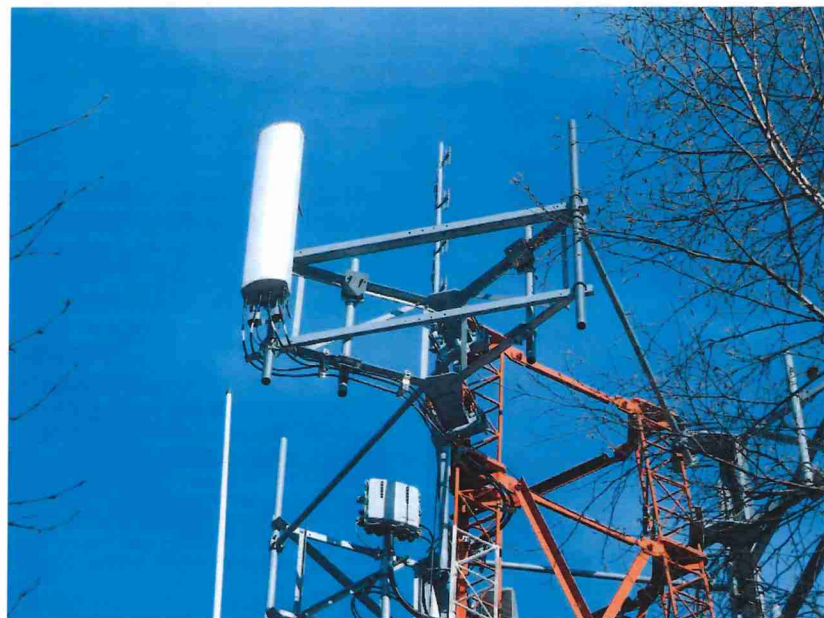
5



3



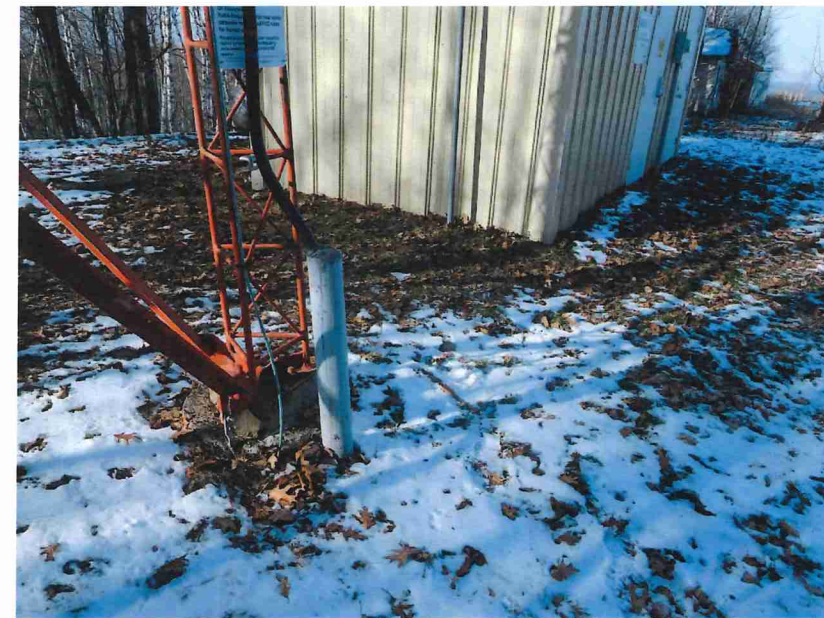
1



6



4



2

C-11

EXISTING T-MOBILE COVP
TO BE REMOVED
(1 TOTAL)

EXISTING T-MOBILE ANTENNAS
TO BE REMOVED
(1 PER SECTOR, 3 TOTAL)

CL OF EXISTING T-MOBILE ANTENNAS
EL. 55'-0" (AGL)

T.O. EXISTING SELF SUPPORT TOWER
EL. 55'-0" (AGL)

EXISTING T-MOBILE FXFC
TO BE REMOVED
(2 TOTAL)

EXISTING T-MOBILE SECTOR FRAMES
TO REMAIN
(1 PER SECTOR, 3 TOTAL)

CL OF EXISTING ANTENNAS (OTHERS)
EL. ±40'-0" (AGL)

EXISTING SELF SUPPORT TOWER

EXISTING T-MOBILE
LOW CAP HYBRID CABLE
TO BE REMOVED
(1 TOTAL)

GRADE
EL. 0'-0" (AGL)

TOWER ELEVATION (EXISTING)

SCALE: 1/8" = 1'-0" (11x17)

2

PRIOR TO CONSTRUCTION, STRUCTURAL ANALYSIS SHALL BE PERFORMED FOR ALL NEW AND EXISTING SUPPORTING TOWERS, ROOFTOPS, FLAG POLES, LIGHT POLES AND ASSOCIATED EQUIPMENT MOUNTS. CONTRACTOR SHALL REVIEW THE SIGNED/SEALED STRUCTURAL ANALYSIS REPORTS PRIOR TO CONSTRUCTION AND SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES LISTED WITHIN THE REPORT(S). ALL CONSTRUCTION, MODIFICATIONS AND/OR REPLACEMENT SPECIFICATIONS SHALL BE FULLY IMPLEMENTED EXACTLY AS NOTED WITHIN THE STRUCTURAL ANALYSES REPORTS/LETTERS.

POWDER RIVER DEVELOPMENT SERVICES, LLC HAS PERFORMED THE FOLLOWING STRUCTURAL ANALYSES AND/ OR CERTIFICATIONS FOR PROPOSED SCOPE OF WORK:

1. MOUNT ANALYSIS REPORT, DATED 12/08/2021.
2. TOWER ANALYSIS REPORT, DATED 12/13/2021.

EXISTING T-MOBILE SECTOR FRAMES
(1 PER SECTOR, 3 TOTAL)

PROPOSED T-MOBILE
FFW-65C-R3-V1 ANTENNAS
(1 PER SECTOR, 3 TOTAL)

PROPOSED T-MOBILE AHFIG
(1 PER SECTOR, 3 TOTAL)

PROPOSED T-MOBILE AEHC ANTENNAS
(1 PER SECTOR, 3 TOTAL)

CL OF PROPOSED T-MOBILE ANTENNAS
EL. 55'-0" (AGL)

T.O. EXISTING SELF SUPPORT TOWER
EL. 55'-0" (AGL)

PROPOSED T-MOBILE AHLOA
(1 PER SECTOR, 3 TOTAL)

CL OF EXISTING ANTENNAS (OTHERS)
EL. ±40'-0" (AGL)

FINAL T-MOBILE APPURTENANCE LIST:

- (3) OCTA PORT ANTENNAS
- (3) MIMO ANTENNAS
- (3) AHLOA
- (3) AHFIG
- (2) HCS 2.0 HYBRID CABLE w/ INTEGRAL
PENDANT BREAKOUT

EXISTING SELF SUPPORT TOWER

PROPOSED T-MOBILE HCS 2.0
HYBRID CABLE w/ INTEGRAL
PENDANT BREAKOUT
(2 TOTAL)

GRADE
EL. 0'-0" (AGL)

NOTE:
THE RRHS WILL NEED TO
BE INSTALLED BETWEEN
FACE HORIZONTALS

NOTE:
G.C. TO CAP OFF AND SEAL EACH
EXISTING UNUSED COAX LINE.

NOTE:
TOWER ELEVATION BASED ON PHOTOS, RFDS, AND
PREVIOUS DRAWINGS. CONTRACTOR TO VERIFY EXISTING
EQUIPMENT AND MOUNTING HEIGHTS.

SCALE: 1/8" = 1'-0" (11x17)

TOWER ELEVATION (PROPOSED)



PRIOR TO CONSTRUCTION, STRUCTURAL ANALYSIS SHALL BE PERFORMED FOR ALL NEW AND EXISTING SUPPORTING TOWERS, ROOFTOPS, FLAG POLES, LIGHT POLES AND ASSOCIATED EQUIPMENT MOUNTS. CONTRACTOR SHALL REVIEW THE SIGNED/SEALED STRUCTURAL ANALYSIS REPORTS PRIOR TO CONSTRUCTION AND SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES LISTED WITHIN THE REPORT(S). ALL CONSTRUCTION, MODIFICATIONS AND/OR REPLACEMENT SPECIFICATIONS SHALL BE FULLY IMPLEMENTED EXACTLY AS NOTED WITHIN THE STRUCTURAL ANALYSES REPORTS/LETTERS.

POWDER RIVER DEVELOPMENT SERVICES, LLC HAS PERFORMED THE FOLLOWING STRUCTURAL ANALYSES AND/ OR CERTIFICATIONS FOR PROPOSED SCOPE OF WORK:

1. MOUNT ANALYSIS REPORT, DATED 12/08/2021.
2. TOWER ANALYSIS REPORT, DATED 12/13/2021.

[illegible]

Diagram illustrating the components of a self-supporting tower structure, showing the existing tower and the proposed removal of certain antennas and frames.

Labels and components:

- EXISTING T-MOBILE ANTENNAS TO BE REMOVED (1 PER SECTOR, 3 TOTAL)
- EXISTING T-MOBILE COVP TO BE REMOVED (1 TOTAL)
- EXISTING T-MOBILE SECTOR FRAMES TO REMAIN (1 PER SECTOR, 3 TOTAL)
- EXISTING T-MOBILE FXFC TO BE REMOVED (2 TOTAL)
- EXISTING SELF SUPPORT TOWER

Angles and orientations:

- ALPHA $AZ = 0^\circ$
- BETA $AZ = 120^\circ$
- GAMMA $AZ = 240^\circ$

EXISTING ANTENNA PLAN

SCALE: N.T.S. 1

	ANTENNA NUMBER	TECHNOLOGY	ANTENNA VENDOR	MODEL NUMBER	ANTENNA RAD CENTER	AZIMUTH	DIPLEXER	RRU TYPE	CABLE TYPE / SIZE	HYBRID CABLE LENGTHS	
										CABLE	JUMPER
ALPHA SECTOR	A-1	L6/N6/L7/L19/G19/L21	COMMSCOPE	FFW-65C-R3-V1	55'	0°	N/A	AHLOA/AHFG	(1) HCS 2.0 HYBRID CABLE	120'	N/A
	A-2	N/A	N/A	N/A	N/A	N/A	N/A	N/A		N/A	N/A
	A-3	L25/N25	NOKIA	AEHC	55'	0°	N/A	N/A		N/A	N/A
BETA SECTOR	B-1	L6/N6/L7/L19/G19/L21	COMMSCOPE	FFW-65C-R3-V1	55'	120°	N/A	AHLOA/AHFG	N/A	N/A	N/A
	B-2	N/A	N/A	N/A	N/A	N/A	N/A	N/A		N/A	N/A
	B-3	L25/N25	NOKIA	AEHC	55'	120°	N/A	N/A		N/A	N/A
GAMMA SECTOR	G-1	L6/N6/L7/L19/G19/L21	COMMSCOPE	FFW-65C-R3-V1	55'	240°	N/A	AHLOA/AHFG	(1) HCS 2.0 HYBRID CABLE	120'	N/A
	G-2	N/A	N/A	N/A	N/A	N/A	N/A	N/A		N/A	N/A
	G-3	L25/N25	NOKIA	AEHC	55'	240°	N/A	N/A		N/A	N/A

Diagram illustrating the proposed antenna layout on a self-supporting tower structure. The layout includes the following components and labels:

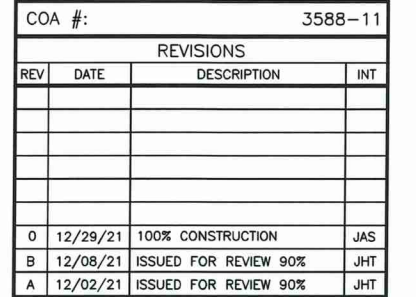
- PROPOSED T-MOBILE AEHC ANTENNAS (1 PER SECTOR, 3 TOTAL)**
- PROPOSED T-MOBILE AHLOA (1 PER SECTOR, 3 TOTAL)**
- PROPOSED T-MOBILE FFV-65C-R3-V1 ANTENNAS (1 PER SECTOR, 3 TOTAL)**
- PROPOSED T-MOBILE AHFIG (1 PER SECTOR, 3 TOTAL)**
- PROPOSED T-MOBILE HCS 2.0 HYBRID CABLE w/ INTEGRAL PENDANT BREAKOUT (2 TOTAL)**
- EXISTING SELF SUPPORT TOWER**
- EXISTING T-MOBILE SECTOR FRAMES (1 PER SECTOR, 3 TOTAL)**
- ALPHA AZ = 0°**
- BETA AZ = 120°**
- GAMMA AZ = 240°**

NOTE:
AZIMUTHS AS REPORTED BY T-MOBILE RFDS
SEE RFDS FOR CABLING REQUIREMENTS

3 | PROPOSED ANTENNA PLAN

SCALE: N.T.S. 2

T-MOBILE USA, INC.
8000 WEST 78TH STREET
SUITE 400
EDINA, MN 55439
OFFICE: 612.701.2069



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SITE INFORMATION:
T-MOBILE SITE #:
A1N0961A

**T-MOBILE SITE NAME:
CABLE WI-TELEMARK
15143 NORDMORE ROAD
CABLE, WI 54821
BAYFIELD**

SHEET TITLE:

ANTENNA PLANS

SHEET NUMBER:

A-2

~~THE INFORMATION CONTAINED IN THIS SET OF CONSTRUCTION DOCUMENTS IS PROPRIETARY BY NATURE. ANY USE OR DISCLOSURE OTHER THAN THAT WHICH RELATES TO CARRIER SERVICES IS STRICTLY PROHIBITED.~~

Town, City, Village, State or Federal
Permits May Also Be Required

LAND USE – **X**
SANITARY –
SIGN –
SPECIAL –
CONDITIONAL –
BOA –

BAYFIELD COUNTY

PERMIT

WEATHERIZE AND POST THIS PERMIT
ON THE PREMISES DURING CONSTRUCTION

No. **22-0039** Issued To: **T-Mobile / Norvado Inc. (American Birkebeiner Ski Foundation Inc)**

Location: **SE** $\frac{1}{4}$ of **NW** $\frac{1}{4}$ Section **28** Township **43** N. Range **7** W. Town of **Cable**

Gov't Lot Lot Block Subdivision CSM#

Commercial Accessory:

For: **Remove (3) antennas, (2) FXFC, (1) 1.0 COVP, and 1 hybrid cable; install (6) antennas, (3) AHFIG, (3) AHLOA, & (2) HCS 2.0 Hybrid cable w/ integral pendant breakout. Equipment: Remove (1) FSMF, 1.0 COVP, (1) SSC, (1) Flexi Table, & (1) CSR 7705 SAR A; Relocate (1) FSMF; Install (2) ASIB, (2) ASIK, (3) ABIA, (6) ABIL, (2) ABIC, (2) AMIA, (1) Voltage Booster w/ 1 extra AMP, (1) CSR IXRE V2 (GEN2), (1) LB3 Battery Cabinet, (1) HPL3 Cabinet, & (2) HCS 2.0 Tower Junction Boxes. (30" x 72") Height of 36". No increase in the tower height and no expansion of equipment area.**

(Disclaimer): Any future expansions or development would require additional permitting.

Condition(s): **Modify as proposed.**

You are responsible for complying with state and federal laws concerning construction near or on wetlands, lakes, and streams. Wetlands that are not associated with open water can be difficult to identify. Failure to comply may result in removal or modification of construction that violates the law or other penalties or costs. For more information, visit the department of natural resources wetlands identification web page or contact a department of natural resources service center (715) 685-2900.

NOTE: This permit expires one year from date of issuance if the authorized construction work or land use has not begun.

Changes in plans or specifications shall not be made without obtaining approval. This permit may be void or revoked if any of the application information is found to have been misrepresented, erroneous, or incomplete.

This permit may be void or revoked if any performance conditions are not completed or if any prohibitory conditions are violated.

Tracy Pooler

Authorized Issuing Official

March 3, 2022

Date

SUBMIT: COMPLETED APPLICATION, TAX STATEMENT AND FEE TO:
Bayfield County
Planning and Zoning Depart.
PO Box 58
Washburn, WI 54891
(715) 373-6138

APPLICATION FOR PERMIT
BAYFIELD COUNTY, WISCONSIN



Permit #:	22-0040
Date:	3-3-2022
Amount Paid:	\$125 1-11-22 JHE Com L.U.
Other:	
Refund:	

INSTRUCTIONS: No permits will be issued until all fees are paid.
Checks are made payable to: Bayfield County Zoning Department.

DO NOT START CONSTRUCTION UNTIL ALL PERMITS HAVE BEEN ISSUED TO APPLICANT.

Original Application MUST be submitted

FILL OUT IN INK (NO PENCIL)

TYPE OF PERMIT REQUESTED	<input checked="" type="checkbox"/> LAND USE	<input type="checkbox"/> SANITARY	<input type="checkbox"/> PRIVY	<input type="checkbox"/> CONDITIONAL USE	<input type="checkbox"/> SPECIAL USE	<input type="checkbox"/> B.O.A.	<input type="checkbox"/> OTHER	
Owner's Name:	T-Mobile / Norvado, Inc.		Mailing Address:	43704 US Hwy. 63		City/State/Zip:	Cable, WI 54821	
Address of Property:	12955 Cable Sunset Road		City/State/Zip:	Cable, WI 54821		Telephone:	(208) 229-8710	
Email: (print clearly)	mary.marshall@powderriverdev.com						Cell Phone:	(714) 658-1502
Contractor:	TBD		Contractor Phone:			Plumber:		
Authorized Agent: (Person Signing Application on behalf of Owner(s))	Mary Marshall- Powder River Development		Agent Phone:	(208) 229-8710		Agent Mailing Address (include City/State/Zip):	408 S. Eagle Rd. Suite 200, Eagle, ID 83616	
PROJECT LOCATION	Legal Description: (Use Tax Statement)	Tax ID#		9408		Recorded Document: (Showing Ownership)	363 164	
NE 1/4, SE 1/4	Gov't Lot	Lot(s)	CSM	Vol & Page	CSM Doc #	Lot(s) #	Block #	
Section 13	Township 43	N, Range 8	W	Town of:	Cable	Lot Size	Acreage	

<input type="checkbox"/> Shoreland	<input type="checkbox"/> Is Property/Land within 300 feet of River, Stream (incl. Intermittent) Creek or Landward side of Floodplain? If yes—continue →	Distance Structure is from Shoreline : _____ feet	Is your Property in Floodplain Zone? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Are Wetlands Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<input type="checkbox"/> Non-Shoreland	<input type="checkbox"/> Is Property/Land within 1000 feet of Lake, Pond or Flowage If yes—continue →	Distance Structure is from Shoreline : _____ feet		

Value at Time of Completion * include donated time & material	Project	Project # of Stories	Project Foundation	Total # of bedrooms on property	What Type of Sewer/Sanitary System(s) Is on the property or Will be on the property?	Type of Water on property
\$25,000.00	<input type="checkbox"/> New Construction	<input type="checkbox"/> 1-Story	<input type="checkbox"/> Basement	<input type="checkbox"/> 1	<input type="checkbox"/> Municipal/City	<input checked="" type="checkbox"/> City
	<input checked="" type="checkbox"/> Addition/Alteration	<input type="checkbox"/> 1-Story + Loft	<input type="checkbox"/> Foundation	<input type="checkbox"/> 2	<input type="checkbox"/> (New) Sanitary Specify Type: _____	<input type="checkbox"/> Well
	<input type="checkbox"/> Conversion	<input type="checkbox"/> 2-Story	<input type="checkbox"/> Slab	<input type="checkbox"/> 3	<input type="checkbox"/> Sanitary (Exists) Specify Type: _____	<input type="checkbox"/>
	<input type="checkbox"/> Relocate (existing bldg)			<input type="checkbox"/>	<input type="checkbox"/> Privy (Pit) or <input type="checkbox"/> Vaulted (min 200 gallon)	
	<input type="checkbox"/> Run a Business on Property		Use	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Portable (w/service contract)	
	<input type="checkbox"/>		Year Round		<input type="checkbox"/> Compost Toilet	
				<input checked="" type="checkbox"/> None		

Existing Structure: (if addition, alteration or business is being applied for)	Length: 31'	Width: 58'	Height: 30'
Proposed Construction: (overall dimensions)	Length: 30'	Width: 72'	Height: 36'

Proposed Use	✓	Proposed Structure	Dimensions	Square Footage
<input type="checkbox"/> Residential Use	<input type="checkbox"/>	Principal Structure (first structure on property)	(X)	
	<input type="checkbox"/>	Residence (i.e. cabin, hunting shack, etc.)	(X)	
		with Loft	(X)	
		with a Porch	(X)	
		with (2nd) Porch	(X)	
		with a Deck	(X)	
<input checked="" type="checkbox"/> Commercial Use		with (2nd) Deck	(X)	
		with Attached Garage	(X)	
<input type="checkbox"/> Municipal Use	<input type="checkbox"/>	Bunkhouse w/ (<input type="checkbox"/> sanitary, or <input type="checkbox"/> sleeping quarters, or <input type="checkbox"/> cooking & food prep facilities)	(X)	
	<input type="checkbox"/>	Mobile Home (manufactured date) _____	(X)	
	<input type="checkbox"/>	Addition/Alteration (explain) _____	(X)	
	<input type="checkbox"/>	Accessory Building (explain) _____	(X)	
	<input type="checkbox"/>	Accessory Building Addition/Alteration (explain) _____	(X)	
	<input type="checkbox"/>	Special Use: (explain) _____	(X)	
	<input type="checkbox"/>	Conditional Use: (explain) _____	(X)	
	<input checked="" type="checkbox"/>	Other: (explain) existing wireless telecommunications facility	30' x 72'	

I (we) declare that this application (including any accompanying information) has been examined by me (us) and to the best of my (our) knowledge and belief it is true, correct and complete. I (we) acknowledge that I (we) am (are) responsible for the detail and accuracy of all information I (we) am (are) providing and that it will be relied upon by Bayfield County in determining whether to issue a permit. I (we) further accept liability which may be a result of Bayfield County relying on this information I (we) am (are) providing in or with this application. I (we) consent to county officials charged with administering county ordinances to have access to the above described property at any reasonable time for the purpose of inspection.

Owner(s):
(If there are Multiple Owners listed on the Deed All Owners must sign or letter(s) of authorization must accompany this application)

Authorized Agent: Mary Marshall (See Note below)
(If you are signing on behalf of the owner(s) a letter of authorization must accompany this application)

Address to send permit 408 S. EAGLE ROAD #200, EAGLE, ID 83616

Date _____

Date 12/13/21

Attach
Copy of Tax Statement

If you recently purchased the property send your Recorded Deed

Turn Over



APPLICANT - PLEASE COMPLETE PLOT PLAN

In the box below: **Draw or Sketch your Property** (regardless of what you are applying for)

- (1) Show Location of: Proposed Construction
(2) Show / Indicate: North (N) on Plot Plan
(3) Show Location of (*): (*) Driveway and (*) Frontage Road (Name Frontage Road)
(4) Show: All Existing Structures on your Property
(5) Show: (*) Well (W); (*) Septic Tank (ST); (*) Drain Field (DF); (*) Holding Tank (HT) and/or (*) Privy (P)
(6) Show any (*): (*) Lake; (*) River; (*) Stream/Creek; or (*) Pond
(7) Show any (*): (*) Wetlands; or (*) Slopes over 20%

Fill Out in Ink – NO PENCIL



Please complete (1) – (7) above (prior to continuing)

Changes in plans must be approved by the Planning & Zoning Dept.

(8) Setbacks: (measured to the closest point)

Description	Setback Measurements	Description	Setback Measurements
Setback from the Centerline of Platted Road	613 Feet	Setback from the Lake (ordinary high-water mark)	N/A Feet
Setback from the Established Right-of-Way	585 Feet	Setback from the River, Stream, Creek	Feet
		Setback from the Bank or Bluff	Feet
Setback from the North Lot Line	595 Feet		
Setback from the South Lot Line	708 Feet	Setback from Wetland	Feet
Setback from the West Lot Line	593 Feet	20% Slope Area on the property	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Setback from the East Lot Line	308 Feet	Elevation of Floodplain	Feet
Setback to Septic Tank or Holding Tank	N/A Feet	Setback to Well	Feet
Setback to Drain Field	Feet		
Setback to Privy (Portable, Composting)	Feet		

Prior to the placement or construction of a structure within ten (10) feet of the minimum required setback, the boundary line from which the setback must be measured must be visible from one previously surveyed corner to the other previously surveyed corner or marked by a licensed surveyor at the owner's expense.

Prior to the placement or construction of a structure more than ten (10) feet but less than thirty (30) feet from the minimum required setback, the boundary line from which the setback must be measured must be visible from one previously surveyed corner to the other previously surveyed corner, or verifiable by the Department by use of a corrected compass from a known corner within 500 feet of the proposed site of the structure, or must be marked by a licensed surveyor at the owner's expense.

(9) Stake or Mark Proposed Location(s) of New Construction, Septic Tank (ST), Drain field (DF), Holding Tank (HT), Privy (P), and Well (W).

NOTICE(s):

All Land Use Permits Expire One (1) Year from the Date of Issuance if Construction or Use has not begun.
For the Construction of New One & Two Family Dwelling: ALL Municipalities Are Required To Enforce The Uniform Dwelling Code.
The local Town, Village, City, State or Federal agencies may also require permits.

If subject property is part of a Condominium Plat, applicant hereby certifies and represents that applicant has all necessary approvals and recorded documents required to complete the project for which this permit is sought including requirements set forth in Wisconsin statutes pertaining to condominium associations, the Declaration of the Condominium Association in which the property is located, and all other rules, regulations and requirements pertaining to that Condominium Association.

You are responsible for complying with state and federal laws concerning construction near or on wetlands, lakes, and streams. Wetlands that are not associated with open water can be difficult to identify. Failure to comply may result in removal or modification of construction that violates the law or other penalties or costs. For more information, visit the department of natural resources wetlands identification web page or contact a department of natural resources service center (715) 685-2900.

Issuance Information (County Use Only)		Sanitary Number:		# of bedrooms:		Sanitary Date:		
Permit Denied (Date):		Reason for Denial:						
Permit #: 22-0040		Permit Date: 3-3-2022						
Is Parcel a Sub-Standard Lot		<input type="checkbox"/> Yes (Deed of Record)	<input checked="" type="checkbox"/> No	Mitigation Required		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Affidavit Required	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Is Parcel in Common Ownership		<input type="checkbox"/> Yes (Fused/Contiguous Lot(s))	<input checked="" type="checkbox"/> No	Mitigation Attached		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Affidavit Attached	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Is Structure Non-Conforming		<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No					
Granted by Variance (B.O.A.)				Previously Granted by Variance (B.O.A.)				
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Case #:				<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Case #:				
Was Parcel Legally Created		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Were Property Lines Represented by Owner		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Was Proposed Building Site Delineated		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Was Property Surveyed		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Inspection Record:						Zoning District (M)		
						Lakes Classification (N/A)		
Date of Inspection: 12/20/21		Inspected by: [Signature]		Date of Re-Inspection:				
Condition(s): Town, Committee or Board Conditions Attached? <input type="checkbox"/> Yes <input type="checkbox"/> No - (if No they need to be attached.)								
- Modify as proposed								
Signature of Inspector: [Signature]							Date of Approval:	
Hold For Sanitary: <input type="checkbox"/>		Hold For TBA: <input type="checkbox"/>		Hold For Affidavit: <input type="checkbox"/>		Hold For Fees: <input type="checkbox"/>		<input checked="" type="checkbox"/> 2/2/22

Bayfield County, WI



1/31/2022, 7:39:56 AM

Building Footprint Outline 2009-2015

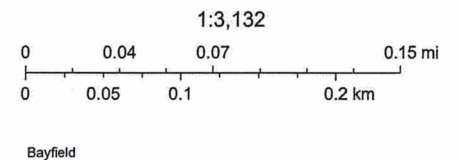
- Changed
- Demolished
- Existing
- New

- Unknown
- Rivers
- Lakes
- Tie Lines
- Meander Lines

- Approximate Parcel Boundary
- Section Lines
- Municipal Boundary
- All Roads
- Federal

- County
- Town
- Survey Maps
- UnRecorded Map
- Recorded Map

- Corner Tie Sheets
- Section Corner Monument on File
- Driveways
- Buildings



 **Description** Updated: 3/5/2019

Tax ID: 9408
PIN: 04-012-2-43-08-13-4 01-000-10000
 Legacy PIN: 012110607000
 Map ID:
 Municipality: (012) TOWN OF CABLE
 STR: S13 T43N R08W
 Description: NE SE IN V.363 P.164 752
 Recorded Acres: 26.000
 Calculated Acres: 28.290
 Lottery Claims: 0
 First Dollar: No
 Zoning: (F-1) Forestry-1
 SSN: 108

 **Tax Districts** Updated: 3/15/2006

STATE
 COUNTY
 TOWN OF CABLE
 SCHL-DRUMMOND
 TECHNICAL COLLEGE

 **Recorded Documents** Updated: 3/15/2006

CONVERSION
 Date Recorded: 363-164

 **Ownership** Updated: 5/10/2011

TOWN OF CABLE CABLE WI

Billing Address:

TOWN OF CABLE
 PO BOX 476
 CABLE WI 54821

Mailing Address:

TOWN OF CABLE
 PO BOX 476
 CABLE WI 54821

 **Site Address** * indicates Private Road

12955 CABLE SUNSET RD CABLE 54821

 **Property Assessment** Updated: 3/15/2006**2021 Assessment Detail**

Code	Acres	Land	Imp.
X4-EXEMPT OTHER	26.000	0	0

2-Year Comparison	2020	2021	Change
Land:	0	0	0.0%
Improved:	0	0	0.0%
Total:	0	0	0.0%

 **Property History**

N/A



Powder River Development Services, LLC
408 S. Eagle Rd., Suite 200
Eagle, ID 83616
(208) 938-8844 office
(208) 938-8855 fax

www.powderriverdev.com

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JAN 11 2022

Bayfield Co.
Planning and Zoning Agency

January 4, 2022

Bayfield County Planning and Zoning
P.O. Box 58
Washburn, WI 54891

RE: Application for Permit Submittal

T-Mobile Site ID: A1N0943A Cable Park

Site Location: 12955 Cable Sunset Road, Cable, WI 54821

Property ID Number: 04-012-2-43-08-13-4 01-000-10000

Powder River Development Services represents T-Mobile regarding their proposed upgrades and modifications to the existing unmanned wireless telecommunications facility referenced above.

The Scope of Work Includes:

At antenna level:

Remove (3) Antennas and (2) FXFC; install (6) Antennas, (3) AHFIG, (3) AHLOA and (1) HCS 2.0 Hybrid Cable w/ Integral Pendant Breakout.

At equipment level:

Remove (1) FSMF, (1) Flexi Table, (1) SSC and (1) CSR 7705 SAR A; relocate (1) FSMF; install (1) HPL3 Cabinet, (1) LB# Cabinet, (2) ASIB, (1) ASIL, (3) ABIA, (2) ABIO, (2) AMIA, (1) CSR IXRE V2 (GEN2), (1) Voltage Booster w/ (1) Extra AMP, (1) HCS 2.0 Tower Junction Box, (1) Floodlight w/ Timer Switch and (1) Timer Switch w/ GFCI Plug on Platform.

There will be no increase in the tower height and no expansion of the equipment area.

Enclosed Submittal Documents:

- Completed Application for Permit
- Letter of Authorization from Property Owner
- Property Ownership Listing
- Eligible Facilities Request Letter
- Construction Drawings
- \$125.00 Check for Application Fee

Project Valuation: \$25,000.00

If you have any questions or need more information, I can be reached by phone at (208) 229-8710 or by email at mary.marshall@powderriverdev.com.

Respectfully,

Mary Marshall

Site Acquisition Manager

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Bayfield Co.
Planning and Zoning Agency

LETTER OF AUTHORIZATION

To: Bayfield County Planning and Zoning Department

RE: Land Use Permit Application


T-Mobile Site ID: A1N0943A Cable Park

Property Address: 12955 Cable Sunset Road, Cable, WI 54821

Parcel ID Number: 04-012-2-43-08-13-4 01-000-10000

As owner(s) or authorized representative of the above-described property, I/we hereby appoint Powder River Development Services, including their authorized representatives, as agent for the purpose of completing and submitting any Land Use Applications necessary to ensure T-Mobile USA's ability to use and/or construct improvements to the property leased, or licensed to it for the purpose of modifying an existing Wireless Telecommunications Facility. Powder River Development Services agrees to acquire written approval from T-Mobile USA on all plans and drawings prior to submitting to the governmental jurisdiction for Land Use approval. I/We understand that the application may be denied, modified or approved with conditions and that such conditions or modifications must be complied with prior to issuance of Building Permits.

I/We hereby authorize the employees of the Bayfield County Planning and Zoning Department to enter upon the subject property during normal business hours as necessary to inspect the property for the purpose of processing this application.


Property Owner or Authorized Representative Signature

Rob Lombardo
Name

C.O.O.
Title









12/14/21
Date

Real Estate Bayfield County Property Listing

Today's Date: 1/4/2022

Property Status: **Current**

Created On: 3/15/2006 1:15:06 PM

 Description		Updated: 3/5/2019	
Tax ID:	9408		
PIN:	04-012-2-43-08-13-4 01-000-10000		
Legacy PIN:	012110607000		
Map ID:			
Municipality:	(012) TOWN OF CABLE		
STR:	S13 T43N R08W		
Description:	NE SE IN V.363 P.164 752		
Recorded Acres:	26.000		
Calculated Acres:	28.290		
Lottery Claims:	0		
First Dollar:	No		
Zoning:	(F-1) Forestry-1		
ESN:	108		
 Tax Districts		Updated: 3/15/2006	
1	STATE		
04	COUNTY		
012	TOWN OF CABLE		
041491	SCHL-DRUMMOND		
001700	TECHNICAL COLLEGE		
 Recorded Documents		Updated: 3/15/2006	
 CONVERSION			
Date Recorded:	363-164		
 Ownership		Updated: 5/10/2011	
TOWN OF CABLE		CABLE WI	
Billing Address:		Mailing Address:	
TOWN OF CABLE		TOWN OF CABLE	
PO BOX 476		PO BOX 476	
CABLE WI 54821		CABLE WI 54821	
 Site Address * indicates Private Road			
12955 CABLE SUNSET RD		CABLE 54821	
 Property Assessment		Updated: 3/15/2006	
2021 Assessment Detail			
Code	Acres	Land	Imp.
X4-EXEMPT OTHER	26.000	0	0
2-Year Comparison		2020	2021
Land:		0	0
Improved:		0	0
Total:		0	0
Change			
		0.0%	0.0%
 Property History			
N/A			

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Bayfield Co.
Planning and Zoning Agency

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Bayfield Co.
Planning and Zoning Agency



Eligible Facilities Request

Date: January 4, 2022

To: Bayfield County Planning and Zoning

From: Powder River Development Services, LLC o/b/o T-Mobile Central LLC

Re: Eligible Facilities Request to modify Transmission Equipment on an Existing Wireless Tower located at 12955 Cable Sunset Road, Cable, WI 54821; T-Mobile Site: A1N0943A

A. T-Mobile's Proposed Project is an Eligible Facilities Request that Must Be Granted

Powder River Development Services, LLC on behalf of T-Mobile Central LLC ("Applicant") is submitting the attached application to add, remove, modify, or replace Transmission Equipment (the "Request") at the existing Tower located at 12955 Cable Sunset Road, Cable, WI 54821 in Bayfield County ("County").

This Request is covered by Section 6409 of the Spectrum Act (47 U.S.C. Sect. 1455(a)),¹ which provides that state and local governments "may not deny, and shall approve, any eligible facilities request for a modification of an existing wireless tower or base station that does not substantially change the physical dimensions of such tower or base station." In this case, the enclosed Request involves a proposal to remove and replace antennas, coax cables and misc. ancillary equipment. The existing Tower is a structure that is 195 feet high and presently contains wireless facilities.

In its implementing regulations, the Federal Communications Commissions ("FCC") determined that any modification to an existing telecommunications Tower that meets the following criteria does not substantially change the physical dimensions of the existing Tower (47 C.F.R. § 1.6100(b)(7)), and therefore is an Eligible Facilities Request that must be granted under Section 6409. The proposed project satisfies those criteria as outlined below because it:

- 1) Will not increase the height of the Tower by more than ten percent (10%) or twenty (20) feet, whichever is greater;

¹ See also 47 C.F.R. § 1.6100 (the FCC's 6409 implementing regulations).

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Bayfield Co.
Planning and Zoning Agency

There will be no increase in Tower height.

- 2) Does not protrude from the edge of the Tower by more than twenty (20) feet;

The antennas will not protrude from the edge of the Tower by more than twenty (20) feet.

- 3) The proposed project does not defeat any existing concealment elements. To be considered a "concealment element," the element must have been a part of the facility at either:

- (1) the time of original approval; or
- (2) at the last modification of the tower if such modification occurred prior to the February 22, 2012 or outside the 6409(a) process (whichever is later).

The definition of "concealment elements" does not extend to "any attribute that minimizes the visual impact of a facility, such as a specific location on a rooftop site or placement behind a tree line or fence."² Moreover, a proposed modification can increase the size of the concealment features, so long as they: (i) do not increase by more than the criteria in (1) and (2) above, and (ii) would continue to effectively make "the structure appear not to be a wireless Facility." If the concealment elements would continue to effectively make the structure appear not to be a wireless facility after the proposed modification, then the modification would not defeat concealment

The existing site does not have any existing concealment elements, so this criterion is satisfied.

- 4) Does not entail any excavation outside the current Tower site;

The proposed project will not involve excavations outside the current Tower site.

- 5) Does not involve the installation of more than the standard number of equipment cabinets for the technology involved, not to exceed four.

The proposed project will involve the removal of two (2) existing cabinets and the installation of two (2) new cabinets for a total of two (2) cabinets.

- 6) The proposed project complies with all prior conditions of approval for the existing site, except for any non-compliance that is due to an increase in height, increase in width,

² *Implementation of State and Local Governments' Obligation to Approve Certain Wireless Facility Modification Requests Under Section 6409(a) of the Spectrum Act of 2012*, FCC 20-75, Declaratory Ruling and Notice of Proposed Rulemaking, ¶ 35 (June 10, 2020). ("5G Upgrade Order").

JAN 11 2022

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addition of equipment cabinets, or new excavation that does not exceed the thresholds above. These conditions may relate to aesthetics or minimizing the visual impact of the wireless facility. To be enforced, there must be express evidence of specific conditions of approval and continued compliance with such conditions.

This project includes the removal of three (3) existing antennas, replacing them with three (6) new antennas.

Finally, all of the equipment being installed as part of this Request qualifies as Transmission Equipment under the FCC's rules at 47 C.F.R. § 1.6100(b)(8).

Based on the foregoing, the Request qualifies for expedited processing under the Spectrum Act.

B. The 60 day Shot Clock Applies to All Necessary Permits or Authorizations to Necessary for T-Mobile to Proceed with the Request

Under Section 6409 "a State or local government may not deny, and shall approve, any eligible facilities request . . . " within 60 days of the filing of a complete application.³ As the FCC's explained in its recent declaratory rule, that time period covers "all qualifying applications" and all necessary permits and authorizations.⁴ Where a jurisdiction requires an applicant too obtain clearance from numerous separate departments or obtained numerous permits, the FCC explained that the applicant starts **the 60 day shot clock when: 1) it takes the "first procedural step" that the jurisdiction requires, even if there are multiple potential "first steps" with various municipal committees or departments, and 2) the applicant provides written documentation demonstrating that the applicable eligible facilities request criteria are satisfied.**⁵

Thus, it is clear that the shot clock and deemed granted remedy of the FCC's rules apply to all of Barron County's requirements, and the 60 day period starts with the filing of the enclosed application.

C. Notice of Expedited Permit Processing and Deemed Granted Remedy

Under federal law, any Eligible Facilities Request is deemed granted sixty (60) days after a complete application is filed. Thus, if sixty days pass after the submission of this Request and the County has not acted to grant or deny the Request, it will be deemed granted.⁶ At that time, the

³ *Id.* ¶ 39 (June 10, 2020). 47 U.S.C. § 1455(a)(1).

⁴ *County of Portland v. U.S.*, 2020 U.S. App. Lexis 25553 **48-49 (9th Cir. Aug. 12, 2020).

⁵ *5G Upgrade Order*, ¶¶ 15-16 (June 10, 2020). The FCC also explained that its ruling provided "considerable flexibility" to structure their procedures for review of Eligible Facilities Requests, "but prevent localities from 'impos[ing] lengthy and onerous processes not justified by the limited scope of review contemplated' by Section 6409(a)." *Id.* ¶ 17.

⁶ Under the FCC's rules, the jurisdiction has 30 days to advise the applicant of the completeness of its application. The rules also provide for the tolling of the shot clock under certain situations.

applicant may advise the County that the application has been deemed granted. If the County wishes to contest whether Request has been deemed granted, the burden is on the County to file a lawsuit in a court of competent jurisdiction within 30 days after receipt of a written communication notifying it that the Request has been deemed granted.

T-Mobile is committed to working cooperatively with you to process this request in a timely and efficient manner. Please do not hesitate to contact me if you have questions at the phone number or email below.

Sincerely,



Mary Marshall

Site Acquisition Manager

Powder River Development Services, LLC

408 S. Eagle Drive, Suite 200

Eagle, ID 83616

(208) 229-8710

mary.marshall@powderriverdev.com

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JAN 11 2022

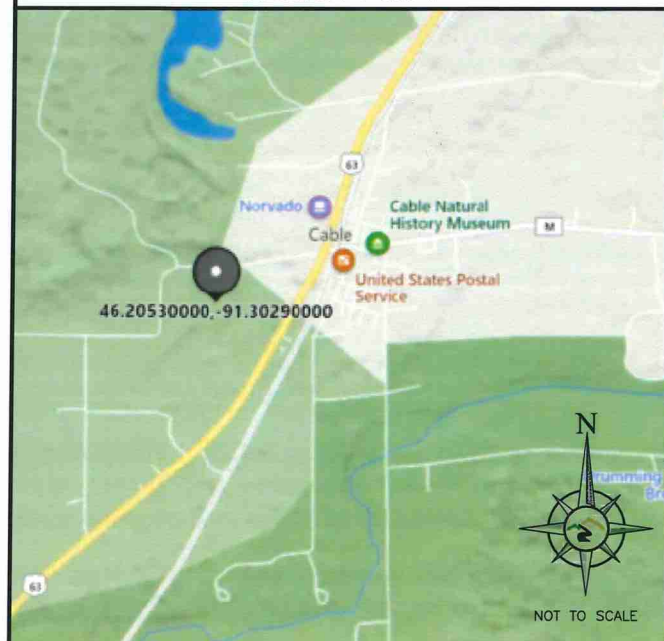
Bayfield Co.
Planning and Zoning Agency

T-Mobile®

SITE PHOTO



VICINITY MAP



T-MOBILE PROJECT

ANCHOR

SITE INFORMATION

T-MOBILE SITE NUMBER: A1N0943A
T-MOBILE SITE NAME: A1N0943A (CABLE TOWER)
SITE TYPE: 195' SELF-SUPPORT TOWER
SITE ADDRESS: 12955 CABLE SUNSET RD
CABLE, WI 54821
COUNTY: BAYFIELD
JURISDICTION: CITY OF CABLE, WI

PROJECT DESCRIPTION

ANTENNA (CL): 178'
AT ANTENNA LEVEL
REMOVE (3) ANTENNAS, (2) FXFC
INSTALL (6) ANTENNAS, (3) AHFIG, (3) AHLOA, & (1) HCS 2.0 HYBRID CABLE w/ INTEGRAL PENDANT BREAKOUT
AT GROUND LEVEL
REMOVE (1) FSMF, (1) FLEXI TABLE, (1) SSC, & (1) CSR 7705 SAR A
RELOCATE (1) FSMF
INSTALL
(1) HPL3 CABINET, (1) LB3 BATTERY CABINET, (2) ASIB, (1) ASIL, (3) ABIA, (2) ABIO, (3) ABIC, (2) AMIA, (1) CSR IXRE V2 (GEN2), (1) VOLTAGE BOOSTER w/ (1) EXTRA AMP, (1) HCS 2.0 TOWER JUNCTION BOX, (1) FLOODLIGHT w/ TIMER SWITCH, AND (1) TIMER SWITCH w/ GFCI PLUG ON PLATFORM.

THESE DRAWINGS ARE BASED ON RFDS VERSION 3 DATED 12/17/2021
GENERAL CONTRACTOR TO VERIFY AND INCORPORATE MOST RECENT VERSION OF THE RFDS WITH T-MOBILE NETWORKS PRIOR TO CONSTRUCTION.

PROPERTY LOCATION

PROPERTY ADDRESS: 12955 CABLE SUNSET RD,
CABLE, WI 54821
TOWER OWNER: NORVADO INC.

APPLICABLE CODES

2015 INTERNATIONAL BUILDING CODE
2017 NATIONAL ELECTRICAL CODE

CONTACT INFORMATION

APPLICANT:
T-MOBILE USA, INC.
8000 WEST 78TH STREET, SUITE 400
EDINA, MN 55439
OFFICE: 612.701.2069

A&E SERVICES:
POWDER RIVER DEVELOPMENT SERVICES, LLC.
408 S. EAGLE ROAD, SUITE 200
EAGLE, ID 83616
CONTACT: CHRIS CROSBY
PHONE: 763.360.1451
EMAIL: chris.crosby@powderriverdev.com

SITE ACQUISITION:
POWDER RIVER DEVELOPMENT SERVICES, LLC.
408 S. EAGLE ROAD, SUITE 200
EAGLE, ID 83616
CONTACT: MARY MARSHALL
PHONE: 208.229.8710
EMAIL: mary.marshall@powderriverdev.com

TOWER OWNER INFO

LL SITE ID: N/A
LL SITE NAME: CABLE PARK B19

COORDINATES

LATITUDE: 46.20530000°
LONGITUDE: -91.30290000°
(PER MOST RECENT RFDS)

DRAWING INDEX

SHEET NO.	DESCRIPTION	REV
T-1	TITLE SHEET	1
GN-1	GENERAL NOTES	1
GN-2	GENERAL NOTES	1
C-1	OVERALL SITE PLAN	1
C-1.1	EXISTING SITE PLAN	1
C-1.2	PROPOSED SITE PLAN	1
C-2	EQUIPMENT PLANS	1
C-3	EQUIPMENT DETAILS	1
C-4	EQUIPMENT DETAILS	1
C-5	EQUIPMENT DETAILS	1
C-6	EQUIPMENT DETAILS	1
C-7	EQUIPMENT DETAILS	1
C-8	EQUIPMENT DETAILS	1
C-9	EQUIPMENT DETAILS	1
C-10	SITE PHOTOS	1
C-11	SITE PHOTOS	1
A-1	TOWER ELEVATIONS	1
A-2	ANTENNA PLANS	1

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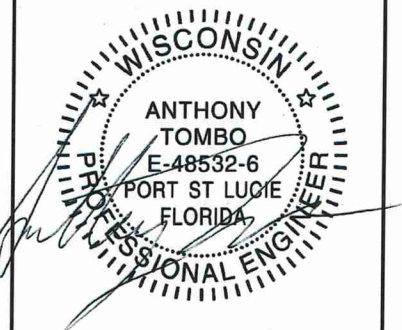
T-Mobile®

T-MOBILE USA, INC.
8000 WEST 78TH STREET
SUITE 400
EDINA, MN 55439
OFFICE: 612.701.2069



BUSINESS LICENSE #: N/A

REVISIONS			
REV	DATE	DESCRIPTION	INT
1	12/20/21	REVISIONS	LNM
0	12/15/21	100% CONSTRUCTION	BMW
B	12/09/21	ISSUED FOR REVIEW 90%	BWS
A	11/29/21	ISSUED FOR REVIEW 90%	LNM



THESE PLANS AND SPECIFICATIONS, AS INSTRUMENTS OF SERVICE, ARE
AND SHALL REMAIN THE PROPERTY OF POWDER RIVER DEVELOPMENT
SERVICES, LLC WHETHER THE PROJECTS FOR WHICH THEY ARE MADE
ARE EXECUTED OR NOT. THESE DRAWINGS AND SPECIFICATIONS SHALL
NOT BE USED BY ANY PERSON OR ENTITY ON OTHER PROJECTS
WITHOUT PRIOR WRITTEN CONSENT OF THE ENGINEER.

SITE INFORMATION:
T-MOBILE SITE #:
A1N0943A

T-MOBILE SITE NAME:
A1N0943A (CABLE TOWER)

12955 CABLE SUNSET RD
CABLE, WI 54821
BAYFIELD COUNTY

SHEET TITLE:

TITLE SHEET

SHEET NUMBER:

T-1

THE INFORMATION CONTAINED IN THIS SET OF CONSTRUCTION DOCUMENTS IS PROPRIETARY BY NATURE. ANY USE OR DISCLOSURE OTHER THAN THAT WHICH RELATES TO CARRIER SERVICES IS STRICTLY PROHIBITED.

GENERAL NOTES

1. GENERAL NOTES AND TYPICAL DETAILS SHALL APPLY TO ALL PARTS OF THE JOB EXCEPT WHERE THEY MAY CONFLICT WITH DETAILS AND NOTES ON OTHER SHEETS. WHERE CONDITIONS ARE NOT SPECIFICALLY INDICATED BUT ARE OF SIMILAR CHARACTER TO DETAILS SHOWN, SIMILAR DETAILS OF CONSTRUCTION SHALL BE USED SUBJECT TO REVIEW BY THE ENGINEER.
2. WORK SHALL CONFORM TO THE REQUIREMENTS, AS AMENDED TO DATE, OF THE LATEST EDITION OF THE BUILDING CODE AND ALL OTHER LOCAL, STATE AND FEDERAL REGULATIONS.
3. OMISSIONS OR CONFLICTS BETWEEN THE VARIOUS ELEMENTS OF THE WORKING DRAWINGS AND/OR SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO PROCEEDING WITH ANY WORK INVOLVED.
4. ALL INFORMATION SHOWN ON THE DRAWINGS RELATIVE TO EXISTING CONDITIONS IS GIVEN AS THE BEST PRESENT KNOWLEDGE, BUT WITHOUT GUARANTEE OF ACCURACY. WHERE ACTUAL CONDITIONS CONFLICT WITH THE DRAWINGS, THEY SHALL BE REPORTED TO THE ENGINEER SO THAT THE PROPER REVISION MAY BE MADE. MODIFICATIONS OF CONSTRUCTION DETAILS SHALL NOT BE MADE WITHOUT THE WRITTEN APPROVAL OF THE ENGINEER.
5. THE CONSTRUCTION DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE AND DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND SHALL BE SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES, INCLUDING BUT NOT LIMITED TO BRACING, TEMPORARY SUPPORTS AND SHORING. OBSERVATION VISITS TO THE SITE BY FIELD REPRESENTATIVES OF THE ENGINEER SHALL NOT INCLUDE INSPECTIONS OF THE PROTECTIVE MEASURES OR THE CONSTRUCTION PROCEDURES. ANY SUPPORT SERVICES PERFORMED BY THE ENGINEER DURING THE CONSTRUCTION SHALL BE DISTINGUISHED FROM CONSTRUCTION AND DETAILED INSPECTION SERVICES WHICH ARE FURNISHED BY OTHERS. THESE SUPPORT SERVICES PERFORMED BY THE ENGINEER, WHETHER OF MATERIAL OR WORK, ARE FOR THE PURPOSE OF ASSISTING IN QUALITY CONTROL AND IN ACHIEVING CONFORMANCE WITH CONTRACT DOCUMENTS, BUT DO NOT GUARANTEE CONTRACTORS PERFORMANCE AND SHALL NOT BE CONSTRUED AS SUPERVISION OF CONSTRUCTION. CONTRACTOR SHALL TAKE NECESSARY PRECAUTIONS TO MAINTAIN AND ENSURE THE INTEGRITY OF THE STRUCTURE DURING CONSTRUCTION. NEITHER THE OWNER NOR ENGINEER WILL ENFORCE SAFETY MEASURES OR REGULATIONS. CONTRACTOR SHALL DESIGN, CONSTRUCT AND MAINTAIN ALL SAFETY DEVICES, INCLUDING SHORING AND BRACING, AND SHALL BE SOLELY RESPONSIBLE FOR CONFORMING TO ALL LOCAL, STATE AND FEDERAL SAFETY AND HEALTH STANDARDS, LAWS AND REGULATIONS.
6. SAFETY: CONFORM TO ALL APPLICABLE OSHA CONSTRUCTION SAFETY REGULATIONS FOR ALL WORK PERFORMED DURING CONSTRUCTION. JOB SITE SAFETY IS STRICTLY THE RESPONSIBILITY OF THE CONTRACTOR AND NOT THE ENGINEER OR OWNER.
7. ANY PROPRIETARY COMPONENTS, MOUNTS, MATERIALS, CHEMICAL, EPOXY AND WEDGE ANCHORS, AND SHOT PINS SHALL BE EXACTLY AS CALLED FOR IN THESE DRAWINGS. ANY DEVIATIONS SHALL BE APPROVED OR DISAPPROVED BY THE ENGINEER AT THE EXPENSE OF THE ENTITY REQUESTING THE SUBSTITUTION PRIOR TO THE INSTALLATION.
8. THE CONTRACTOR'S SCOPE OF WORK SHALL INCLUDE ALL ITEMS DEFINED IN THE CONTRACT DOCUMENTS. THE CONTRACT DOCUMENTS INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING: THE CONTRACT, SPECIFICATIONS AND CONSTRUCTION DRAWINGS.
9. THE CONTRACTOR SHALL BE ULTIMATELY RESPONSIBLE FOR COORDINATION AND ASSEMBLY OF ALL PARTS OF THE CONSTRUCTION DEPICTED HEREIN. THE CONTRACTOR SHALL PERFORM ANY CONSTRUCTABILITY REVIEW OR COORDINATION DRAWINGS NECESSARY TO IDENTIFY CONSTRUCTABILITY PROBLEMS PRIOR TO CONSTRUCTION.
10. THE CONTRACTOR SHALL VISIT THE JOB SITE TO REVIEW THE SCOPE OF WORK AND EXISTING JOB SITE CONDITIONS INCLUDING, BUT NOT LIMITED TO, MECHANICAL, ELECTRICAL SERVICE AND OVERALL COORDINATION. THE CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS PRIOR TO SUBMITTING HIS BID. ANY DISCREPANCIES, CONFLICTS OR OMISSIONS, ETC., SHALL BE REPORTED TO THE CARRIER CONSTRUCTION SUPERVISOR BEFORE PROCEEDING WITH THE WORK.
11. THE CONTRACTOR SHALL PROTECT ALL AREAS FROM DAMAGE WHICH MAY OCCUR DURING CONSTRUCTION. ANY DAMAGE TO NEW AND EXISTING STRUCTURES, LANDSCAPING OR EQUIPMENT SHALL BE IMMEDIATELY REPAIRED OR REPLACED TO THE SATISFACTION OF THE TENANT, BUILDING OWNER OR OWNER'S REPRESENTATIVE AT THE EXPENSE OF THE CONTRACTOR.
12. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE ALL EXISTING UTILITIES, WHETHER SHOWN HEREON OR NOT, AND TO PROTECT THEM FROM DAMAGE. THE CONTRACTOR SHALL BEAR ALL EXPENSES FOR REPAIR OR REPLACEMENT OF UTILITIES OR OTHER PROPERTY DAMAGED IN CONJUNCTION WITH THE EXECUTION OF WORK.
13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COMPLETE SECURITY OF THE SITE WHILE THE JOB IS IN PROGRESS AND UNTIL THE JOB IS COMPLETED.
14. THE CONTRACTOR SHALL PROVIDE TEMPORARY WATER, POWER AND TOILET FACILITIES AS REQUIRED BY THE GOVERNING AGENCY.
15. THE CONTRACTOR AND ALL SUBORDINATE CONTRACTORS SHALL COMPLY WITH ALL LOCAL AND STATE AND FEDERAL REGULATIONS.
16. THE CONTRACTOR SHALL OBTAIN AND PAY FOR PERMITS, LICENSES AND INSPECTIONS NECESSARY FOR PERFORMANCE OF THE WORK AND INCLUDE THOSE IN THE COST OF THE WORK TO CARRIER.
17. CHECK ACCURACY OF ALL DIMENSIONS IN THE FIELD. UNLESS SPECIFICALLY NOTED, DO NOT FABRICATE ANY MATERIALS OFF SITE, NOR PERFORM ANY CONSTRUCTION ACTIVITIES UNTIL THE ACCURACY OF DRAWING DIMENSIONS HAVE BEEN VERIFIED AGAINST ACTUAL FIELD DIMENSIONS. IN ALL CASES WHERE A CONFLICT MAY OCCUR, SUCH AS BETWEEN ITEMS COVERED IN SPECIFICATIONS AND NOTES ON THE DRAWINGS OR BETWEEN GENERAL NOTES AND SPECIFIC PLANS OR DETAILS, THE ENGINEER SHALL BE NOTIFIED, AND HE/SHE WILL INTERPRET THE INTENT OF THE CONTRACT DOCUMENTS PRIOR TO THE INSTALLATION OF THAT PORTION OF WORK.
18. THE CONTRACTOR SHALL NOTIFY THE CARRIER CONSTRUCTION SUPERVISOR OF ANY CONFLICTS OR DISCREPANCIES IN THE CONTRACT DOCUMENTS OR FIELD CONDITIONS PRIOR TO EXECUTING THE WORK IN QUESTION.
19. THE CONTRACTOR SHALL NOTIFY THE CARRIER CONSTRUCTION SUPERVISOR IF DETAILS ARE CONSIDERED UNSOUND, UNSAFE, NOT WATERPROOF, OR NOT WITHIN CUSTOMARY TRADE PRACTICE. IF WORK IS PERFORMED, IT WILL BE ASSUMED THAT THERE IS NO OBJECTION TO THE DETAIL. DETAILS ARE INTENDED TO SHOW THE END RESULT OF THE DESIGN. MINOR MODIFICATIONS MAY BE REQUIRED TO SUIT JOB

- CONDITIONS, AND SHALL BE INCLUDED AS PART OF THE WORK.
20. EXISTING ELEVATIONS AND LOCATIONS TO BE JOINED SHALL BE VERIFIED BY THE CONTRACTOR BEFORE CONSTRUCTION. IF THEY DIFFER FROM THOSE SHOWN ON THE PLANS, THE CONTRACTOR SHALL NOTIFY THE CARRIER CONSTRUCTION SUPERVISOR SO THAT MODIFICATIONS CAN BE MADE BEFORE PROCEEDING WITH THE WORK.
21. ALL SYMBOLS AND ABBREVIATIONS USED ON THE DRAWINGS ARE CONSIDERED CONSTRUCTION STANDARDS. IF THE CONTRACTOR HAS QUESTIONS REGARDING THEIR EXACT MEANING, THE ENGINEER SHALL BE CONTACTED FOR CLARIFICATION BEFORE PROCEEDING WITH THE WORK.
22. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY BLOCKING, BACKING, FRAMING, HANGERS OR OTHER SUPPORT NOT OTHERWISE SHOWN HEREIN. ALL SUSPENDED MECHANICAL EQUIPMENT TO BE SWAY OR Laterally BRACED.
23. GOVERNING AGENCY-APPROVED PLANS SHALL BE KEPT IN A PLAN BOX AND SHALL NOT BE USED BY WORKMEN. ALL CONSTRUCTION SETS SHALL REFLECT SAME INFORMATION. AT ALL TIMES THESE ARE TO BE UNDER THE CARE OF THE JOB SUPERINTENDENT.
24. DESIGN DRAWINGS ARE DIAGRAMMATIC ONLY AND SHALL BE FOLLOWED AS CLOSELY AS ACTUAL CONSTRUCTION CONDITIONS WILL PERMIT. ANY ERROR, OMISSION, OR DESIGN DISCREPANCY SHALL BE BROUGHT TO THE ATTENTION OF THE CARRIER CONSTRUCTION SUPERVISOR FOR CLARIFICATION OR CORRECTION BEFORE CONSTRUCTION.
25. AS-BUILT REQUIREMENTS: DO NOT USE RECORD DOCUMENTS FOR CONSTRUCTION PURPOSES. PROTECT RECORD DOCUMENTS FROM DETERIORATION AND LOSS IN A SECURE, FIRE-RESISTANT LOCATION. PROVIDE ACCESS TO RECORD DOCUMENTS FOR THE CARRIER CONSTRUCTION SUPERVISOR'S REFERENCE DURING NORMAL WORKING HOURS. MAINTAIN A CLEAN, UNDAMAGED SET OF BLUE OR BLACK LINE PRINTS OF CONTRACT DRAWINGS AND SHOP DRAWINGS. MARK THE SET TO SHOW THE ACTUAL INSTALLATION WHERE THE INSTALLATION VARIES SUBSTANTIALLY FROM THE WORK AS ORIGINALLY SHOWN. MARK WHICH DRAWINGS ARE MOST CAPABLE OF SHOWING CONDITIONS FULLY AND ACCURATELY. WHERE SHOP DRAWINGS ARE USED, RECORD A CROSS-REFERENCE AT THE CORRESPONDING LOCATION ON THE CONTRACT DRAWINGS. GIVE ATTENTION TO CONCEALED ELEMENTS THAT WOULD BE DIFFICULT TO MEASURE AND RECORD AT A LATER DATE. MARK RECORD SETS WITH RED ERASABLE PENCIL. USE OTHER COLORS TO DISTINGUISH BETWEEN VARIATIONS IN SEPARATE CATEGORIES OF THE WORK. MARK NEW INFORMATION THAT IS IMPORTANT TO THE OWNER BUT WAS NOT SHOWN ON THE CONTRACT DRAWINGS, DETAILS OR SHOP DRAWINGS. NOTE RELATED CHANGE ORDER NUMBERS WHERE APPLICABLE. NOTE RELATED RECORD DRAWING INFORMATION AND PRODUCT DATA. UPON COMPLETION OF THE WORK, SUBMIT ONE (1) COMPLETE SET OF RECORD DOCUMENTS TO THE CARRIER CONSTRUCTION SUPERVISOR FOR THE OWNER'S RECORDS.
26. A CLOSEOUT BOOK CONTAINING THE FOLLOWING, SHALL BE PROVIDED BY THE CONTRACTOR, AS APPLICABLE:
- A. AS BUILT DESIGN DRAWINGS
 - B. SWEEP TEST RESULTS
 - C. RESISTIVELY TEST
 - D. PHOTO DOCUMENTATION OF:
 - I. UNDERGROUND CONDUITS AND GROUND RING
 - II. ANTENNA, COAX, JUMPER ATTACHMENTS AND GROUND KIT ATTACHMENTS
 - III. ANTENNA DOWN TILT MEASUREMENT USING AN INCLINOMETER ON THE BACK PLANE OF THE ANTENNA
 - IV. GROUND BAR ATTACHMENTS
 - E. SIGNED OFF PERMIT CARDS
 - F. CERTIFICATE OF OCCUPANCY
 - G. RETURN OF KEYS AND/OR ACCESS AUTHORIZATION
 - H. ORIGINAL BUILDING PERMIT

SITE WORK NOTES

1. SCOPE: CLEARING, GRUBBING, STRIPPING, EROSION CONTROL, SURVEY, LAYOUT, SUB GRADE PREPARATION, FINISH GRADING AND SECURITY FENCE, AS REQUIRED BY CONSTRUCTION DRAWINGS AND DETAIL DRAWINGS.
2. REFERENCES:
- A. DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS FOR THE STATE IN WHICH THE PROJECT IS LOCATED.
 - B. ASTM (AMERICAN SOCIETY FOR TESTING AND MATERIALS)
 - C. OSHA (OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION)
 - D. AASHTO (AMERICAN ASSOCIATION OF STATE TRANSPORTATION OFFICIALS)
3. INSPECTION AND TESTING:
- A. FIELD TESTING OF EARTHWORK, AGGREGATE BASE COURSE, COMPACTION AND CONCRETE TESTING SHALL BE PERFORMED BY THE CONTRACTOR'S INDEPENDENT TESTING LAB.
 - B. ALL WORK SHALL BE INSPECTED AND RELEASED BY THE CARRIER CONSTRUCTION SUPERVISOR WHO SHALL CARRY OUT THE GENERAL INSPECTION OF THE WORK WITH SPECIFIC CONCERN TO PROPER PERFORMANCE OF THE WORK AS SPECIFIED AND/OR CALLED FOR ON THE DRAWINGS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO REQUEST TIMELY INSPECTIONS PRIOR TO PROCEEDING WITH FURTHER WORK THAT WOULD MAKE PARTS OF THE WORK INACCESSIBLE OR DIFFICULT TO INSPECT.
4. SITE MAINTENANCE AND PROTECTION:
- A. PROVIDE ALL NECESSARY JOB SITE MAINTENANCE FROM COMMENCEMENT OF THE WORK UNTIL COMPLETION OF THE CONTRACT.
 - B. CONTACT THE ONE-CALL UTILITY LOCATION SERVICE PRIOR TO ANY EXCAVATING ACTIVITIES TO HAVE LOCATIONS OF UNDERGROUND UTILITIES VERIFIED.
 - C. AVOID DAMAGE TO THE SITE INCLUDING EXISTING FACILITIES, STRUCTURES, TREES AND SHRUBS DESIGNATED TO REMAIN. TAKE PROTECTIVE MEASURES TO PREVENT EXISTING ITEMS THAT ARE NOT DESIGNATED FOR REMOVAL FROM BEING DAMAGED BY THE WORK.
 - D. KEEP SITE FREE OF ALL PONDING WATER.
 - E. CONTRACTOR SHALL PROVIDE ALL EROSION AND SEDIMENTATION CONTROL MEASURES AS REQUIRED BY LOCAL, CITY, COUNTY AND STATE CODES AND ORDINANCES TO PROTECT EMBANKMENTS FROM SOIL LOSS AND TO PREVENT

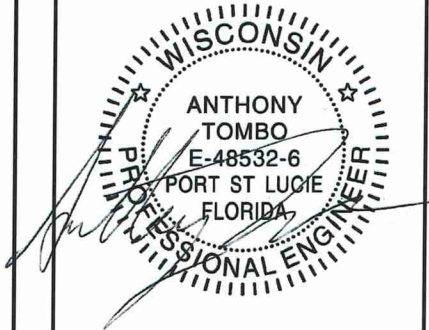
- ACCUMULATION OF SOIL AND SILT IN STREAMS AND DRAINAGE PATHS LEAVING THE CONSTRUCTION AREA. THIS MAY INCLUDE SUCH MEASURES AS SILT FENCES, STRAW BALE SEDIMENT BARRIERS AND CHECK DAMS.
- F. PROVIDE AND MAINTAIN ALL TEMPORARY FENCING, BARRICADES, WARNING SIGNALS AND SIMILAR DEVICES NECESSARY TO PROTECT LIFE AND PROPERTY DURING THE ENTIRE PERIOD OF CONSTRUCTION. REMOVE ALL SUCH DEVICES UPON COMPLETION OF THE WORK.
5. BEFORE STARTING GENERAL SITE PREPARATION ACTIVITIES, INSTALL EROSION AND SEDIMENT CONTROL MEASURES. THE WORK AREA SHALL BE CONSTRUCTED AND MAINTAINED IN SUCH CONDITION THAT IN THE EVENT OF RAIN THE SITE WILL BE WELL DRAINED AT ALL TIMES.
6. ENSURE POSITIVE DRAINAGE DURING AND AFTER COMPLETION OF CONSTRUCTION.
7. PERFORM ALL SURVEY, LAYOUT, STAKING AND MARKING TO ESTABLISH AND MAINTAIN ALL LINES, GRADES, ELEVATIONS AND BENCHMARKS NEEDED FOR EXECUTION OF THE WORK.
8. CLEAR AND GRUB THE AREA WITHIN THE LIMITS OF THE SITE AND ONLY THE IMMEDIATE SURROUNDINGS NECESSARY TO COMPLETE THE WORK. REMOVE TREES, BRUSH, STUMPS, RUBBISH AND OTHER DEBRIS AND VEGETATION RESTING ON OR PROTRUDING THROUGH THE SURFACE OF THE SITE AREA TO BE CLEARED AND GRUBBED.
9. REMOVE FROM THE SITE AND DISPOSE IN AN AUTHORIZED LANDFILL ALL DEBRIS RESULTING FROM CLEARING AND GRUBBING OPERATIONS. BURNING IS NOT PERMITTED.
10. PRIOR TO EXCAVATING, THOROUGHLY EXAMINE THE AREA TO BE EXCAVATED AND/OR TRENCHED TO VERIFY THE LOCATIONS OF FEATURES INDICATED ON THE DRAWINGS, AND ASCERTAIN THE EXISTENCE AND LOCATION OF ANY STRUCTURE, UNDERGROUND STRUCTURE, CULVERT, STREAM CROSSING OR OTHER ITEM NOT SHOWN THAT MIGHT AFFECT OR INTERFERE WITH THE NEW CONSTRUCTION. NOTIFY THE CARRIER CONSTRUCTION SUPERVISOR OF ANY OBSTRUCTIONS THAT WILL PREVENT ACCOMPLISHMENT OF THE WORK AS INDICATED ON THE DRAWINGS.
11. SEPARATE AND STOCKPILE ALL EXCAVATED MATERIALS SUITABLE FOR BACK FILL. ALL EXCESS EXCAVATED, AND UNSUITABLE MATERIALS SHALL BE DISPOSED OF IN AN AREA DESIGNATED BY THE CARRIER CONSTRUCTION SUPERVISOR. (UNSUITABLE MATERIAL MAY BE REQUIRED TO BE REMOVED FROM THE SITE.)

T-Mobile

T-MOBILE USA, INC.
8000 WEST 78TH STREET
SUITE 400
EDINA, MN 55439
OFFICE: 612.701.2069



BUSINESS LICENSE #:				N/A
REVISONS				
REV	DATE	DESCRIPTION	INT	
1	12/20/21	REVISONS	LNM	
0	12/15/21	100% CONSTRUCTION	BMW	
B	12/09/21	ISSUED FOR REVIEW 90%	BWS	
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SITE INFORMATION:
T-MOBILE SITE #:
A1N0943A

T-MOBILE SITE NAME:
A1N0943A (CABLE TOWER)

12955 CABLE SUNSET RD
CABLE, WI 54821
BAYFIELD COUNTY

SHEET TITLE:

GENERAL NOTES

SHEET NUMBER:

GN-1

THE INFORMATION CONTAINED IN THIS SET OF CONSTRUCTION DOCUMENTS IS PROPRIETARY BY NATURE. ANY USE OR DISCLOSURE OTHER THAN THAT WHICH RELATES TO CARRIER SERVICES IS STRICTLY PROHIBITED.

1. THESE NOTES DESCRIBE THE MINIMUM REQUIREMENT FOR INSTALLATION OF ALL ELECTRICAL SYSTEMS. SUBMITTAL OF BID INDICATES THAT THE CONTRACTOR IS COGNIZANT OF ALL JOB SITE CONDITIONS AND WORK TO BE PERFORMED UNDER THIS CONTRACT.
2. THE PUBLICATIONS LISTED BELOW FORM PART OF THESE NOTES. EACH PUBLICATION SHALL BE THE LATEST REVISION AND ADDENDUM IN EFFECT ON THE DATE THIS SPECIFICATION IS ISSUED FOR CONSTRUCTION, UNLESS NOTED OTHERWISE. EXCEPT AS MODIFIED BY THE REQUIREMENTS SPECIFIED HEREIN, OR THE DETAILS OF THE DRAWINGS, WORK INCLUDED IN THIS SPECIFICATION SHALL CONFORM TO THE APPLICABLE PROVISIONS OF THESE PUBLICATIONS:
 - A. ANSI (AMERICAN NATIONAL STANDARDS INSTITUTE)
 - B. IEEE (INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS)
 - C. NEC (NATIONAL ELECTRICAL CODE), LATEST EDITION
 - D. NEMA (NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION)
 - E. NFPA 70 (NATIONAL FIRE PROTECTION ASSOCIATION)
 - F. OSHA (OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION), INCLUDING ALL APPLICABLE AMENDMENTS
 - G. UL (UNDERWRITERS LABORATORIES)
 - H. APPLICABLE LOCAL CODES AND ORDINANCES
3. THE CONTRACTOR SHALL INSTALL UNDERGROUND ELECTRICAL AND TELEPHONE CONDUITS AND CABLE AS SPECIFIED HEREIN AND AS SHOWN ON THE DRAWINGS.
4. WHEN FINISHED, WORK SHALL BE IN A COMPLETE AND UNDAMAGED STATE, AS REQUIRED IN THE CONTRACT DOCUMENTS.
5. ITEMS SHALL BE NEW AND SHALL BE INSTALLED ONLY IF IN FIRST-CLASS CONDITION.
6. SUBSTITUTIONS FOR MATERIAL WILL BE PERMITTED ONLY BY WRITTEN APPROVAL OF THE CARRIER CONSTRUCTION SUPERVISOR AND BY THE ENGINEER.
7. THE CONTRACTOR SHALL PROVIDE ALL MATERIAL EXCEPT AS SPECIFIED IN THE CONTRACT DOCUMENTS. ALL MATERIAL SHALL BE APPROVED AND LISTED BY OR BEAR THE UL LABEL, AND WILL COMPLY WITH ANSI, IEEE AND NEMA STANDARDS WHERE APPLICABLE.
8. CONDUITS:
 - A. ALL UNDERGROUND CONDUIT SHALL BE SCHEDULE 40 PVC, SIZED AS SHOWN ON THE CONSTRUCTION DRAWINGS.
 - B. ALL EXTERIOR ABOVEGROUND CONDUIT SHALL BE PER LOCAL CODE REQUIREMENTS.
 - C. ALL INTERIOR CONDUIT SHALL BE EMT WITH COMPRESSION-TYPE FITTINGS.
 - D. LIQUID-TIGHT FLEXIBLE METALLIC CONDUIT SHALL BE USED FOR OUTDOOR LOCATIONS WHERE FLEXIBLE CONNECTION IS REQUIRED.
9. CABLES CONDUCTORS FOR GENERAL WIRING SHALL BE NEC STANDARD ANNEALED COPPER WIRE WITH NEC 600-VOLT INSULATION.
 - A. #8 AND LARGER-STRANDED TYPE, THHN OR THWN.
 - B. #10 AND SMALLER-SOLID TYPE THHN OR THWN.
 - C. CONDUCTORS IN CONDUIT IN OR ADJACENT TO HIGH HEAT SOURCE SHALL BE TYPE XHHW.
 - D. CONDUCTORS IN CONDUITS ABOVE ROOF, ON TOP OF ROOF OR INSIDE BUILT-UP ROOFING MATERIAL SHALL BE TYPE XHHW
10. CONVENIENCE OUTLET, UNLESS NOTED OTHERWISE, SURFACE-MOUNTED OUTLETS FOR EXTERIOR LOCATIONS SHALL BE FERALOY, CAD/ZINC ELECTROPLATED WITH THREADED HUBS OR CONDUIT ENTRANCES DRILLED AND TAPPED. ALL COVERS SHALL BE SELF-CLOSING AND GASKETED. SURFACE MOUNTED OUTLETS FOR INTERIOR LOCATIONS SHALL BE GALVANIZED, PRESSED STEEL WITH COVER PLATE, SIERRA PLASTIC STYLE, IVORY COLOR.
11. COAXIAL CABLE SUPPORTS 1. ALL WAVE GUIDE SUPPORTS SHALL BE MANUFACTURED TO MEET ALL COAX MINIMUM BENDING REQUIREMENTS. SUPPORTS SHALL BE PROVIDED EVERY 3'-0" ON CENTER.
12. BEFORE LAYING OUT WORK, EXERCISE PROPER PRECAUTION TO VERIFY EACH MEASUREMENT.
13. USE EXTREME CAUTION BEFORE EXCAVATING IN EXISTING AREAS TO LOCATE EXISTING UNDERGROUND SERVICES.
14. A VISUAL CHECK OF ELECTRICAL AND TELEPHONE CABLES, CONDUITS AND OTHER ITEMS SHALL BE MADE BY A CARRIER CONSTRUCTION SUPERVISOR BEFORE THESE ITEMS ARE PERMANENTLY INSTALLED.
15. THE CONTRACTOR SHALL NOTIFY THE CARRIER CONSTRUCTION SUPERVISOR 24 HOURS PRIOR TO TRENCH BACK FILL.
16. TRENCHING, BACK FILLING, BEDDING AND COMPACTING SHALL COMPLY WITH SITE WORK SPECIFICATIONS.
17. DIG TRENCHES TO THE REQUIRED DEPTH AS SHOWN ON THE DRAWINGS WITHOUT POCKETS OR DIPS. REMOVE LARGE STONES FROM THE BOTTOM OF THE TRENCH AND FIRMLY TAMP LOOSE FILL IN THE BOTTOM BEFORE CONDUIT IS LAID.
18. INSTALL UNDERGROUND CONDUIT WITH A MINIMUM 3-INCH TO 100-FOOT SLOPE OR TO A SLOPE SHOWN ON THE DRAWINGS.
19. UNLESS SHOWN OTHERWISE ON THE DRAWINGS, TERMINATE AND CAP ALL STUB-UPS 12 INCHES ABOVE FINISHED GRADE ELEVATION.
20. WHEREVER CONDUITS CROSS UNDER ROADWAYS, USE GALVANIZED RIGID STEEL CONDUITS IN ALL CASES, EXTENDING 5 FEET BEYOND THE EDGE OF THE ROAD BED. MINIMUM DEPTH FOR CONDUIT SHALL BE 4 FEET BELOW ROADWAY GRADE.
21. MARK UNDERGROUND CONDUITS WITH A 6-INCH WIDE RED POLYETHYLENE TAPE BURIED 6 INCHES UNDER THE SURFACE DIRECTLY OVER THE CONDUITS. MARK THE TAPE THUS: CAUTION-BURIED ELECTRICAL CABLE.
22. FOR SEALING CONDUITS, USE ONLY NON-THERMOPLASTIC COMPOUNDS SUCH AS J.M. DUXSEAL, OR AN CARRIER-APPROVED SUBSTITUTE. THE COMPOUND SHALL HAVE NO EFFECT ON RUBBER OR RUBBER-LIKE INSULATIONS, LEAD, ALUMINUM OR FERROUS ALLOYS; IT SHALL BE INSOLUBLE IN WATER AND WITHSTAND MAXIMUM TEMPERATURE RANGES OF THE LOCALITY.
23. COAXIAL - REFER TO ANTENNA AND COAXIAL CABLE INSULATION PROCEDURES.
24. ANTENNA - REFER TO ANTENNA AND COAXIAL CABLE INSULATION PROCEDURES.
25. LNA/MHA - REFER TO ANTENNA AND COAXIAL CABLE INSULATION PROCEDURES.

GROUNDING NOTES

1. THIS SPECIFICATION PRESCRIBES THE REQUIREMENTS FOR FURNISHING, INSTALLATION AND TESTING OF THE GROUNDING CABLE, CONNECTORS AND ASSOCIATED COMPONENTS AS INDICATED ON THE DRAWINGS.
2. APPLICATIONS OF ELECTRICAL GROUNDING AND BONDING WORK SPECIFIED IN THIS SPECIFICATION INCLUDE THE FOLLOWING:
- FENCE AND GATE POSTS
 - ELECTRICAL POWER SYSTEMS
 - GROUNDING ELECTRODES
 - GROUND BUS BAR
 - SERVICE EQUIPMENT
 - ENCLOSURES
 - MONOPOLE / LATTICE TOWER
 - ICE BRIDGE
3. REFERENCES: THE PUBLICATIONS LISTED BELOW FORM PART OF THESE DRAWINGS. EACH PUBLICATION SHALL BE THE LATEST REVISION AND ADDENDUM IN EFFECT ON THE DATE THESE DRAWINGS ARE ISSUED FOR CONSTRUCTION, UNLESS NOTED OTHERWISE. EXCEPT AS MODIFIED BY THE REQUIREMENTS SPECIFIED HEREIN, OR THE DETAILS OF THE DRAWINGS, WORK INCLUDED IN THESE DRAWINGS SHALL CONFORM TO THE APPLICABLE PROVISIONS OF THESE PUBLICATIONS.
- ANSI (AMERICAN NATIONAL STANDARDS INSTITUTE)
 - IEEE (INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS)
 - NEC (NATIONAL ELECTRICAL CODE), LATEST EDITION
 - NEMA (NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION)
 - NESC (NATIONAL ELECTRICAL SAFETY CODE), LATEST EDITION
 - OSHA (OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION)
 - UL (UNDERWRITERS' LABORATORIES)
 - APPLICABLE LOCAL CODES AND ORDINANCES
4. MATERIALS: EXCEPT AS OTHERWISE INDICATED, PROVIDE ELECTRICAL GROUNDING AND BONDING SYSTEMS INDICATED; WITH ASSEMBLY OF MATERIAL, INCLUDING, BUT NOT LIMITED TO, GROUNDING ELECTRODES, BONDING JUMPER AND ADDITIONAL ACCESSORIES NEEDED FOR A COMPLETE INSTALLATION. WHERE MORE THAN ONE TYPE OF COMPONENT PRODUCT MEETS INDICATED REQUIREMENTS, SELECTION IS INSTALLER'S OPTION. WHERE MATERIALS OR COMPONENTS ARE NOT INDICATED, PROVIDE PRODUCTS WHICH COMPLY WITH NEC, UL, AND IEEE REQUIREMENTS AND WITH ESTABLISHED INDUSTRY STANDARDS FOR THOSE APPLICATIONS INDICATED.
- A. GROUNDING:
- THE EQUIPMENT SHALL BE GROUNDED AS FOLLOWS, AS SHOWN ON THE DRAWINGS AND IN COMPLIANCE WITH NEC ARTICLE 250 AND STATE AND LOCAL CODES.
 - GROUND RODS AND QUANTITY SHOWN ON THE DRAWINGS ARE DIAGRAMMATIC. THE CONTRACTOR SHALL PERFORM A GROUND-RESISTANCE-TO-EARTH TEST. SHOULD THE INSTALLATION HAVE A RESISTANCE OF 5 OHMS OR MORE, CONTRACTOR SHALL INSTALL MORE GROUND RODS AS NECESSARY SO THAT THE OVERALL GROUND-TO-EARTH RESISTANCE IS LESS THAN 5 OHMS.
 - INSTALL ELECTRICAL GROUNDING AND BONDING SYSTEMS AS INDICATED, IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS, NEC'S "STANDARD OF INSTALLATION," AND IN ACCORDANCE WITH RECOGNIZED INDUSTRY PRACTICES TO ENSURE THAT PRODUCTS COMPLY WITH REQUIREMENTS.
 - COORDINATE WITH OTHER ELECTRICAL WORK AS NECESSARY TO INTERFACE INSTALLATION OF ELECTRICAL GROUNDING AND BONDING SYSTEMS.
 - INSTALL GROUND CONDUCTORS A MINIMUM OF 36 INCHES BELOW FINISHED GRADE WHICH ENIRCLE THE TOWER AND EQUIPMENT, AND ARE CONNECTED TO EACH DRIVEN GROUND ROD. GROUND TRENCH SHALL BE AT LEAST 24 INCHES AWAY FROM FOUNDATIONS.
 - TIGHTEN GROUNDING AND BONDING CONNECTORS, INCLUDING SCREWS AND BOLTS, IN ACCORDANCE WITH MANUFACTURER'S PUBLISHED TORQUE TIGHTENING VALUE FOR CONNECTORS AND BOLTS. WHERE MANUFACTURER'S TORQUEING REQUIREMENTS ARE NOT INDICATED, TIGHTEN CONNECTIONS TO COMPLY WITH TIGHTENING TORQUE VALUE SPECIFIED IN UL 486A TO ASSURE PERMANENT AND EFFECTIVE GROUNDING.
 - APPLY CORROSION-RESISTANT FINISH (NO-OX OR CARRIER-APPROVED EQUIVALENT) TO FIELD-CONNECTIONS, AT COPPER GROUND BARS AND PLACES WHERE FACTORY APPLIED PROTECTIVE COATING HAVE BEEN DESTROYED, OR ARE SUBJECTED TO CORROSIVE AND/OR OXIDATION PROCESS.
 - ON EXISTING LATTICE TOWERS, WATER TOWERS AND ROOF TOPS, WHEN A NEW GROUNDING SYSTEM IS INSTALLED, THE CONTRACTOR SHALL TIE THE NEW GROUND SYSTEM TO THE EXISTING WATER TOWER, LATTICE TOWER STRUCTURAL STEEL OR BUILDING STRUCTURAL STEEL AS THE CASE MAY BE AT A MINIMUM OF ONE LOCATION SO THAT THEY ARE AT THE SAME VOLTAGE POTENTIAL.
 - ALL TOWER AND TOP GROUND WIRES SHALL BE SUPPORTED EVERY TWO FEET MAXIMUM.
- B. GROUND RODS:
- GROUND RODS SHALL BE 5/8" DIAMETER WITH 8'-0" EMBEDMENT MIN., COPPER CLAD DRIVEN ROD(S).
 - GROUND ROD(S) SHALL BE LOCATED AT THE PERIMETER OF EQUIPMENT AS TO CREATE A GROUND RING AS SHOWN ON THE DRAWINGS.
 - GROUND ROD(S) SHALL BE SPACED AT A MINIMUM OF 8'-0" AND A MAXIMUM SPACING OF 10'-0" ON CENTER.
 - GROUND RODS SHALL BE BURIED BELOW THE FROSTLINE. AT NO TIME SHALL THIS DEPTH BE LESS THAN 18" BELOW FINISHED GRADE.
 - GROUND RODS WHICH CANNOT BE DRIVEN STRAIGHT DOWN THE ENTIRE 10'-0", SHALL BE DRIVEN AT AN ANGLE NOT GREATER THAN 45 DEGREES (NEC 250-83 AND 250-84).
 - GROUND ROD LOCATIONS SHALL BE NOTED ON THE AS-BUILT DRAWING

- COMPLETE WITH DIMENSIONS.
- VII. PROVIDE GROUND TEST WELLS SHOWN ON THE CONSTRUCTION DRAWINGS.
- C. GROUND CONDUCTOR:
- I. ALL DIRECT BURIED GROUND CONDUCTORS SHALL BE TINNED SOLID (#2 AWG) WIRE. BURIED GROUND CONDUCTOR SHALL BE INSTALLED AT MINIMUM DEPTH OF 36" BELOW GRADE.
 - II. ALL SUB GRADE GROUND CONNECTIONS SHALL BE MADE USING EXOTHERMIC WELD PROCESS. CONNECTIONS SHALL INCLUDE ALL CABLE TO CABLE SPLICES, TEES AND ALL GROUND ROD CONNECTIONS. MOLD, WELD KITS, ETC., SHALL BE MANUFACTURED BY CADWELD AND SHALL BE INSTALLED AS PER THE MANUFACTURER'S INSTRUCTIONS.
 - III. GROUND CONDUCTORS SHALL BE ROUTED IN THE SHORTEST AND C STRAIGHTEST DISTANCES POSSIBLE TO MINIMIZE TRANSIENT VOLTAGE RISES. CONDUCTORS SHALL BE INSTALLED AS FOLLOWS:
 - IV. ALL GROUND CONDUCTORS SHALL FOLLOW A CONTINUOUS DOWNWARD PATTERN TO THE GROUND SOURCE. (NEVER RUN GROUND CONDUCTOR IN AN UPWARD DIRECTION.)
 - V. CONDUCTORS SHALL BE INSTALLED WITH A MINIMUM OF 12-INCH MINIMUM BENDING RADIUS.
 - VI. WHEN THE MINIMUM BENDING RADIUS CANNOT BE ACHIEVED, GROUND CABLES SHALL BE ROUTED AT 90-DEGREE BENDS WITH THE USE OF EXOTHERMIC CONNECTIONS AT 90 DEGREES, WITH THE INTENT IS TO ELIMINATE THE CABLE BEND RADIUS AND REPLACE THE RADIUS WITH AN EXOTHERMIC CONNECTION.
- REPARATION:
- A. ALL SURFACES TO WHICH GROUND CONNECTIONS WILL BE MADE SHALL BE FREE OF PAINT, GALVANIZING DIRECT CORROSION, ETC.
 - B. ALL METAL SURFACES EXPOSED ON GROUNDING SHALL BE EITHER COLD GALVANIZE, OR PAINTED TO MATCH ORIGINAL SURFACE.
- EXAMINE AREAS AND CONDITIONS UNDER WHICH ELECTRICAL GROUNDING AND ONDING CONNECTIONS ARE TO BE MADE AND NOTIFY CARRIER CONSTRUCTION SUPERVISOR AND ENGINEER OF RECORD IN WRITING OF CONDITIONS DETRIMENTAL TO PROPER COMPLETION OF WORK. DO NOT PROCEED WITH WORK UNTIL UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED. THE CONTRACTOR SHALL NOTIFY THE CARRIER CONSTRUCTION SUPERVISOR A MINIMUM OF 24 HOURS PRIOR TO TRENCH BACK FILL. ALL WORK DONE BELOW FINISHED GRADE SHALL BE INSPECTED BY THE CONSTRUCTION SUPERVISOR DURING THAT PERIOD.
- GROUND TESTING:
- A. THE CONTRACTOR SHALL TEST THE GROUND ELECTRODE ROD RESISTANCE IN ACCORDANCE WITH THE METHODS OF MEASUREMENT DEFINED IN THE FALL OF POTENTIAL METHOD.
 - B. TEST INSTRUMENTS SHALL OPERATE AT A FREQUENCY OTHER THAN 60 HERTZ AND SHALL CONTAIN STRAY CURRENT AND DC FILTERS, FAULT CURRENT PROTECTION AND HAVE SENSITIVITY TO OPERATE A LOW SIGNAL STRENGTH.
 - C. PRIOR TO TESTING, THE CONTRACTOR SHALL DE-ENERGIZE ALL POWER SOURCES, DISCONNECT THE ELECTRODE CONDUCTOR FROM THE GROUND ROD, WEAR HIGH VOLTAGE RUBBER SAFETY GLOVES.
 - D. GROUND TESTS ARE TO BE PERFORMED BY QUALIFIED PERSONS FAMILIAR WITH THE CONSTRUCTION AND OPERATION OF THE EQUIPMENT AND THE HAZARDS INVOLVED.
 - E. AN INDEPENDENT, APPROVED OUTSIDE FIRM SHALL PERFORM THE GROUND TEST AS OUTLINED. ALL TEST RESULTS SHALL BE FORWARDED TO THE CARRIER CONSTRUCTION SUPERVISOR FOR APPROVAL.

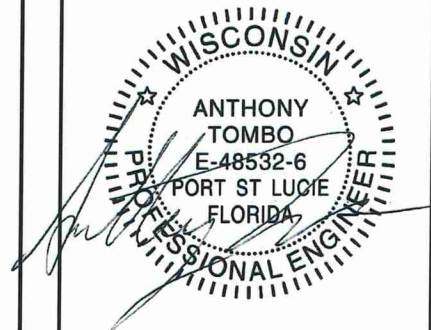


T-MOBILE USA, INC.
8000 WEST 78TH STREET
SUITE 400
EDINA, MN 55439
OFFICE: 612.701.2069



BUSINESS LICENSE #:	N/A
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REVISIONS			
REV	DATE	DESCRIPTION	INT
1	12/20/21	REVISIONS	LNM
0	12/15/21	100% CONSTRUCTION	BMW
B	12/09/21	ISSUED FOR REVIEW 90%	BWS
A	11/29/21	ISSUED FOR REVIEW 90%	LNM



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SITE INFORMATION:
T-MOBILE SITE #:
A1N0943A

**T-MOBILE SITE NAME:
A1N0943A (CABLE TOWER)
12955 CABLE SUNSET RD
CABLE, WI 54821
BAYFIELD COUNTY**

SHEET TITLE:

GENERAL NOTES

SHEET NUMBER:

GN-2

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DISCLAIMER:

THESE DRAWINGS WERE PRODUCED WITHOUT THE BENEFIT OF A CURRENT LAND SURVEY. ALL PROPERTY LINES, EASEMENTS, SETBACKS, AND DIMENSIONS SHOWN SHALL BE VERIFIED PRIOR TO START OF CONSTRUCTION. POWDER RIVER DEVELOPMENT SERVICES, LLC. DOES NOT GUARANTEE THE ACCURACY OF SAID PROPERTY LINES, EASEMENTS, SETBACKS, AND DIMENSIONS SHOWN.



SITE OVERVIEW

2



OVERALL SITE PLAN

SCALE: N.T.S.

1

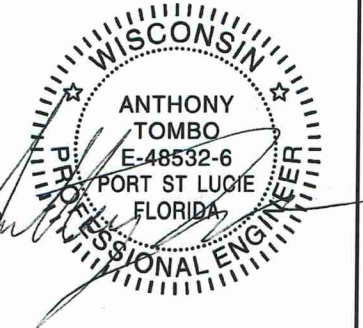
T-Mobile

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A1N0943A

T-MOBILE SITE NAME:
A1N0943A (CABLE TOWER)

12955 CABLE SUNSET RD
CABLE, WI 54821
BAYFIELD COUNTY

SHEET TITLE:
OVERALL SITE PLAN

SHEET NUMBER:
C-1

DISCLAIMER:

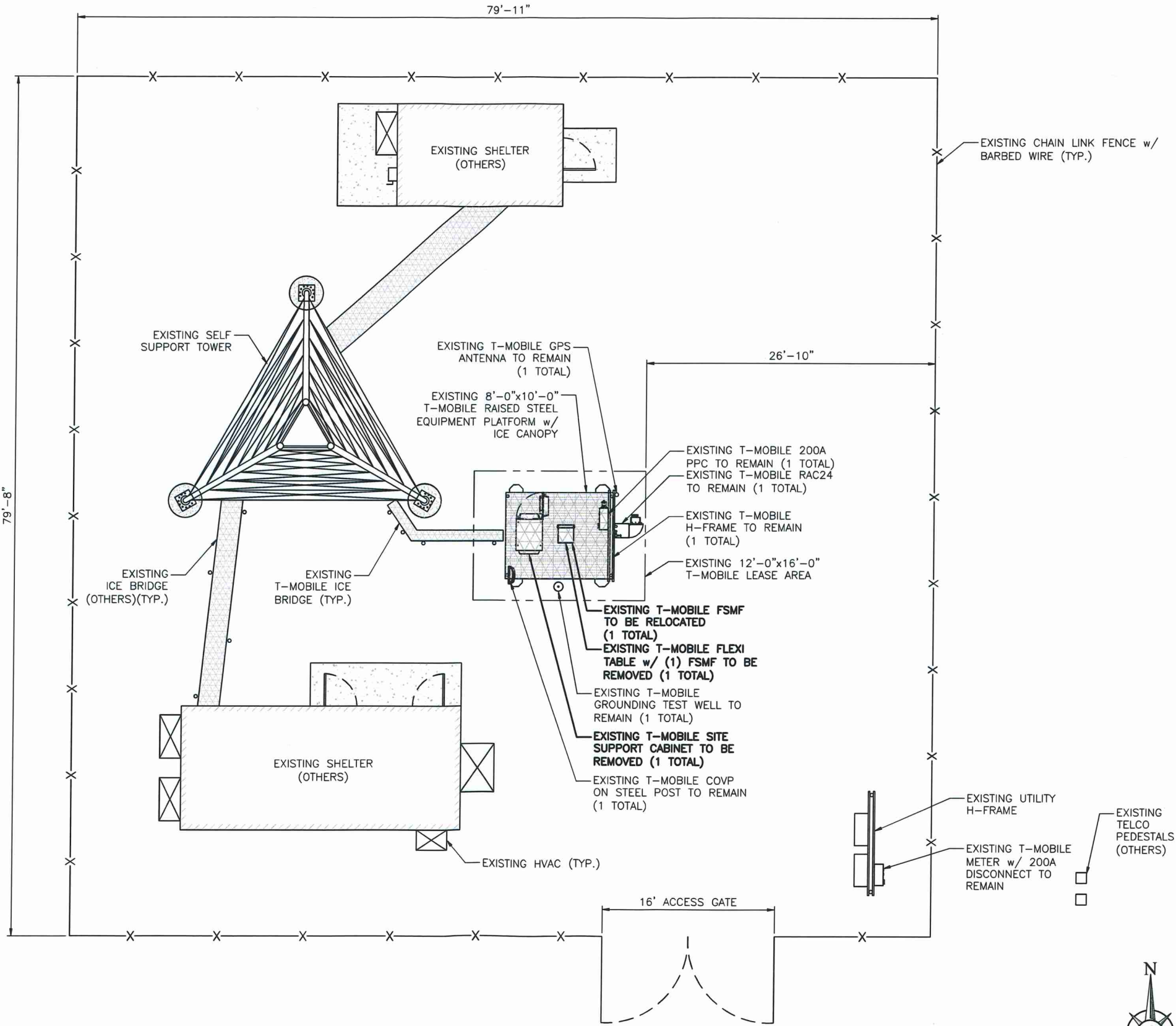
THESE DRAWINGS WERE PRODUCED WITHOUT THE BENEFIT OF A CURRENT LAND SURVEY. ALL PROPERTY LINES, EASEMENTS, SETBACKS, AND DIMENSIONS SHOWN SHALL BE VERIFIED PRIOR TO START OF CONSTRUCTION. POWDER RIVER DEVELOPMENT SERVICES, LLC. DOES NOT GUARANTEE THE ACCURACY OF SAID PROPERTY LINES, EASEMENTS, SETBACKS, AND DIMENSIONS SHOWN.

GROUND MOUNTED EQUIPMENT
CHANGES ARE TO BE MADE TO GROUND MOUNTED EQUIPMENT AS PART OF THE ANCHOR RFDS.

PROPOSED EQUIPMENT:
(1) HPL3 CABINET, (1) LB3 BATTERY CABINET, (2) ASIB,
(1) ASIL, (3) ABIA, (2) ABIO, (3) ABIC, (2) AMIA, (1) CSR IXRE V2 (GEN2), (1) VOLTAGE BOOSTER w/ (1) EXTRA AMP, (1) HCS 2.0 TOWER JUNCTION BOX, (1) FLOODLIGHT w/ TIMER SWITCH, AND (1) TIMER SWITCH w/ GFCI PLUG ON PLATFORM.

RELOCATE:
(1) FSMF

EQUIPMENT TO BE REMOVED:
(1) FSMF, (1) FLEXI TABLE, (1) SSC, & (1) CSR 7705 SAR A



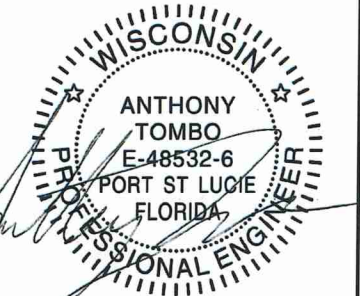
T-Mobile

T-MOBILE USA, INC.
8000 WEST 78TH STREET
SUITE 400
EDINA, MN 55439
OFFICE: 612.701.2069

POWDER RIVER
Development Services, LLC

BUSINESS LICENSE #: N/A

REVISIONS				
REV	DATE	DESCRIPTION	INT	
1	12/20/21	REVISIONS	LN	
0	12/15/21	100% CONSTRUCTION	BM	
B	12/09/21	ISSUED FOR REVIEW 90%	BWS	
A	11/29/21	ISSUED FOR REVIEW 90%	LN	



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12955 CABLE SUNSET RD
CABLE, WI 54821
BAYFIELD COUNTY

SHEET TITLE:
EXISTING SITE PLAN

SHEET NUMBER:
C-1.1

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(1) ASIL, (3) ABIA, (2) ABIO, (3) ABIC, (2) AMIA, (1) CSR IXRE
V2 (GEN2), (1) VOLTAGE BOOSTER w/ (1) EXTRA AMP, (1) HCS
2.0 TOWER JUNCTION BOX, (1) FLOODLIGHT w/ TIMER SWITCH,
AND (1) TIMER SWITCH w/ GFCI PLUG ON PLATFORM.

(1) FSMF

(1) FSMF, (1) FLEXI TABLE, (1) SSC, & (1) CSR 7705 SAR A



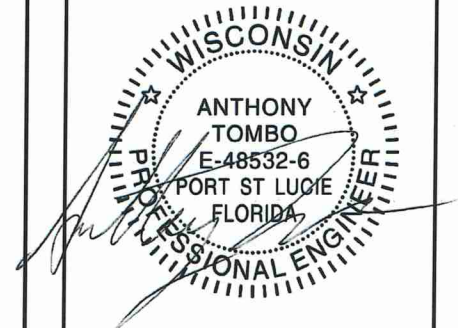
SCALE: 3/32" = 1'-0" (11x17)

1

T-MOBILE USA, INC.
8000 WEST 78TH STREET
SUITE 400
EDINA, MN 55439
OFFICE: 612.701.2069



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**T-MOBILE SITE NAME:
A1N0943A (CABLE TOWER)**

**12955 CABLE SUNSET RD
CABLE, WI 54821
BAYFIELD COUNTY**

SHEET TITLE:

PROPOSED SITE PLAN

SHEET NUMBER:

C-1.2

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DISCLAIMER:

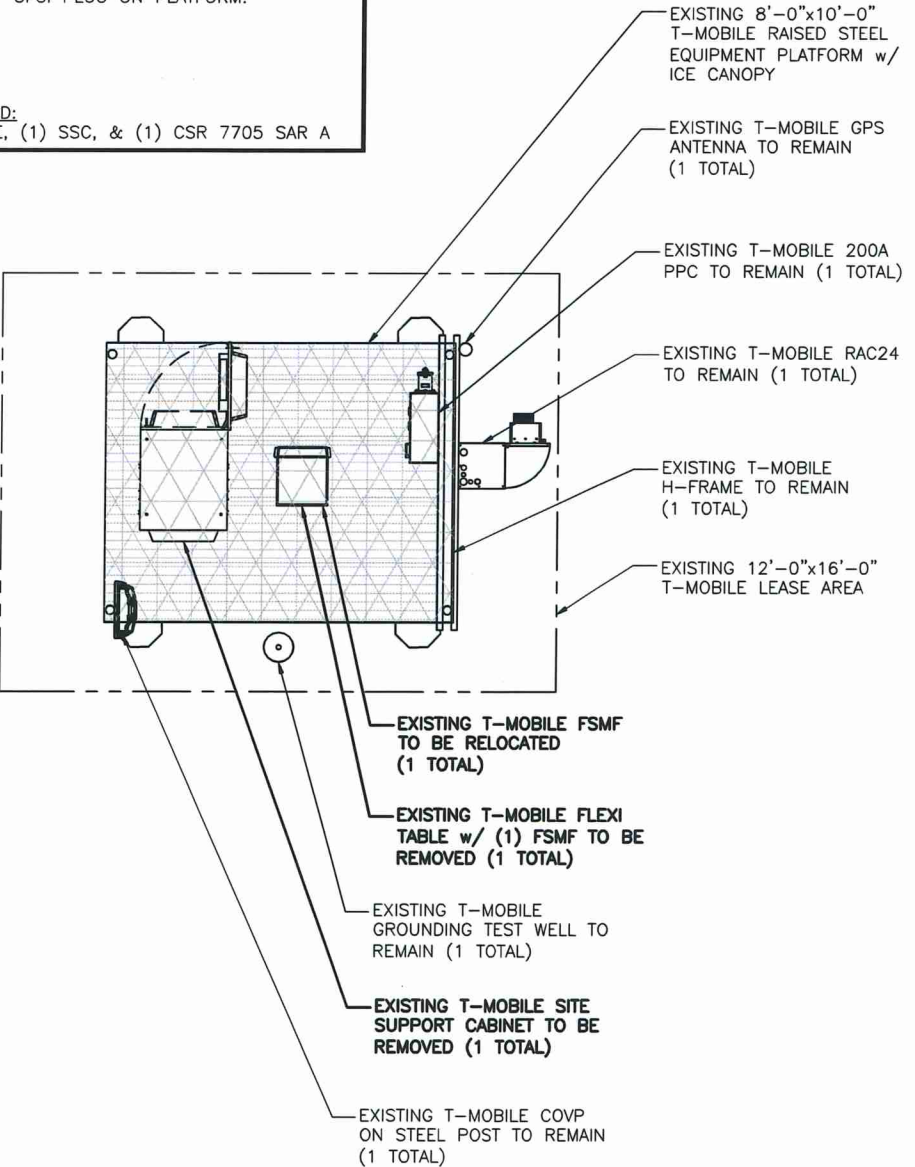
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RELOCATE:
(1) FSMF

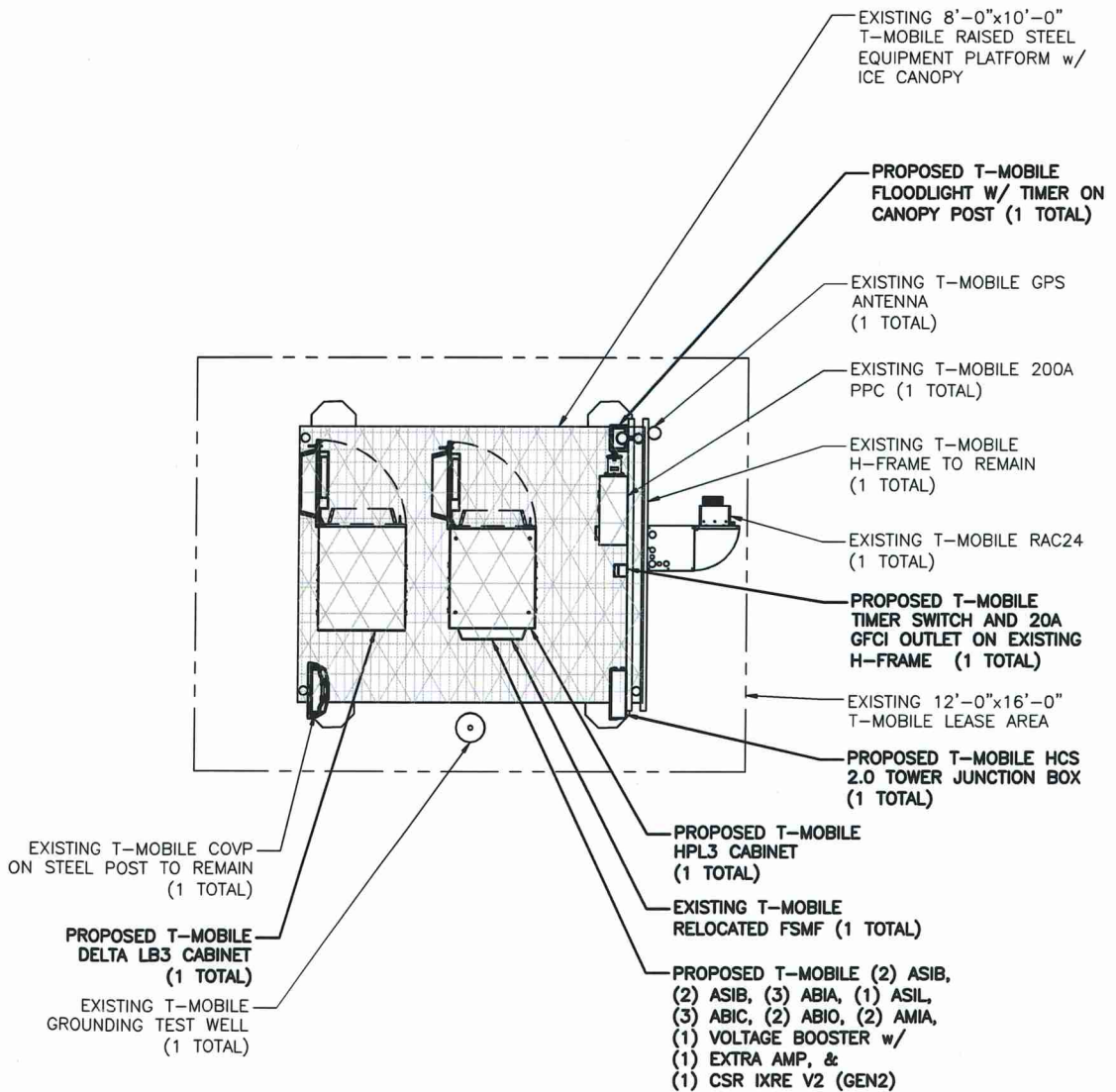
EQUIPMENT TO BE REMOVED:
(1) FSMF, (1) FLEXI TABLE, (1) SSC, & (1) CSR 7705 SAR A



EXISTING ENLARGED EQUIPMENT PLAN

SCALE: 3/16" = 1'-0" (11x17)

PROPOSED ENLARGED EQUIPMENT PLAN



SCALE: 3/16" = 1'-0" (11x17)

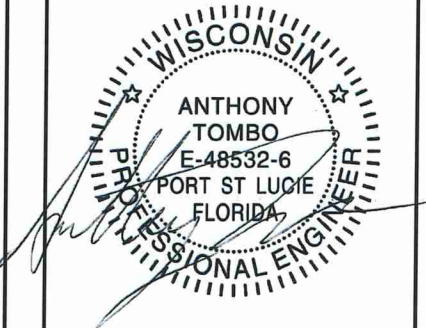


T-MOBILE USA, INC.
8000 WEST 78TH STREET
SUITE 400
EDINA, MN 55439
OFFICE: 612.701.2069



BUSINESS LICENSE #: N/A

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12955 CABLE SUNSET RD
CABLE, WI 54821
BAYFIELD COUNTY

SHEET TITLE:
EQUIPMENT PLANS

SHEET NUMBER:

C-2

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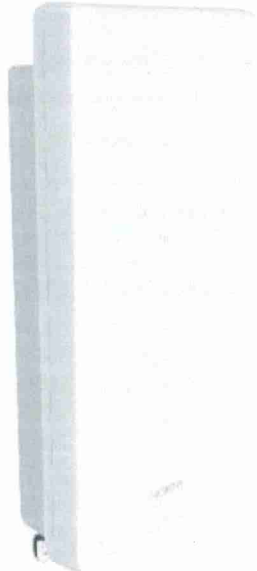
FFVV-65C-R3-V1



MANUFACTURER: COMMScope
MODEL: FFVV-65C-R3-V1
WEIGHT: 124.561 LBS
DIMENSIONS: HxWxD: 95.945" x 25.197" x 9.252"
FREQUENCY: 617MHz-894 MHz
1695-2690 MHz
CONNECTION: (8) 4.3-10 FEMALE

NOKIA

Standard	3GPP/ETSI/3GPP/ETSI compliant, TDD
Supported RAT	4G, 5G
Band / Frequency range	2496 - 2690 MHz
Max. supported modulation	256 QAM
Number of TX/RX ports	64T / 64R
MIMO streams	16
Instantaneous bandwidth (BW)	194 MHz
Occupied bandwidth (OBW)	190 MHz
Total average EIRP	79 dBm
Max. output power per TX/R	5 W / 78W (320 W total, 2 W/9W up to 160 MHz)
Dimensions / Volume	964 mm (H) x 544 mm (W) x 150 mm (D) / 72 l
Weight	49 kg, without mounting brackets
Wind load Front/Rear/Side	704/738/138 N, EN1991-1-4, wind velocity 42m/s (150 km/h)
Supply voltage / Connector type	DC -36 V ... -60 V / APG
Power consumption	134.7 W (75% DL duty cycle, ETSI Average)
Optical ports	4 x SFP28, 10/25GE eCPRI / OCTIS
Other interfaces / Connector type	Control AISG / RS-485, External Alarms / MODBUS, 5 status LEDs
Operational temperature range	-40 °C ... +55 °C
Cooling	Forced cooling
Installation options	Pole and wall mounting with AMPF, a 15° mechanical vertical tilt
Protection / Surge protection	IP65, Class II 20 kA
Antenna configuration	12, 8, 2 (±45° X-polarized), Logical (4, 8, 2)
Typical Antenna Gain (as defined by 3GPP)	24 dBi ±1 dB
Minimum omnibeam beamwidth (1°)	13° ± 1°
Beamwidth steering range	±45° (3 dB), ±50° (4 dB)
Envelope azimuthal beamwidth (1°)	±60° (7 dB)
Minimum elevation beamwidth (1°)	6.5° ± 0.5°
Envelope elevation beamwidth (1°)	±16° ... ±4° (upper SLS > 6 dB), ±14° ... ±2° (upper SLS > 10 dB)
Elevation scanning range (1°)	±3° (upper SLS > 6 dB), ±5° (upper SLS > 10 dB)
Vertical tilt (pre-tilt) angle	±6°
Front to Back Ratio	> 28 dB
Cross-Polar discrimination (Slewage)	> 18 dB



MANUFACTURER: NOKIA
MODEL: AEHC AIRSCALE MAA 64T64R 192AE B41 320W
WEIGHT: 108.027 LBS
DIMENSIONS: HxWxD: 37.95" x 21.42" x 5.91"
FREQUENCY: 2496 - 2690 MHz

ANTENNA INFORMATION

SCALE: N.T.S.

5

ANTENNA INFORMATION

SCALE: N.T.S.

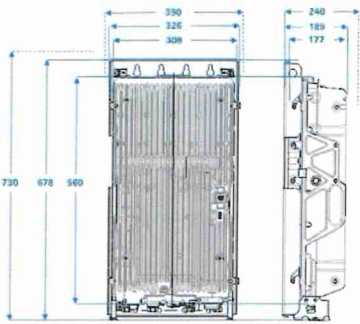
3

ANTENNA ATTACHMENT

SCALE: N.T.S.

1

NOKIA



All dimensions in mm
Case: 560 X 308 X 177 ± 31L
Envelope: 578 X 325 X 189 ± 42L
Envelope with cover (bottom) Intel: 730 X 390 X 240

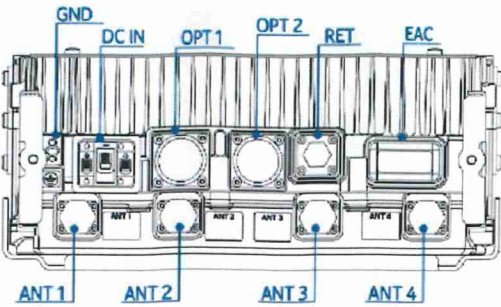
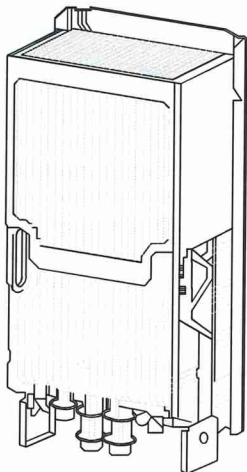
AHLOA: 600MHz/700MHz Radio (4Tx4Rx RRH)

Specification	
Configuration	4T4R Dual Band
Output Power	4x30W
IBW/OBW	Full Band/Full Band
PIM Cancellation	Yes (Multi Band)
Power Sharing	Yes
Weight	83.7 lbs with no covers & brackets
Size	Approx 32.6l
Dimensions	560 mm x 308 mm x 189 mm
Connector	4.3-10* (4 ports)

AHLOA

- Based on Airscale Platform
- Tower installation only (No Ground installation)
- License requirement for MIMO Functions and Dual Band
- Utilizes 4.3-10 RF Connector
- CPRI fiber front haul
- Product expected Q2 2018

NOKIA



MANUFACTURER: NOKIA
MODEL: AHFIG
WEIGHT: 70.6 LBS
DIMENSIONS: HxWxD: 28.7" x 12.9" x 5.6"
FREQUENCY: 1710 - 1780 MHz

RADIO INFORMATION

SCALE: N.T.S.

4

RADIO INFORMATION

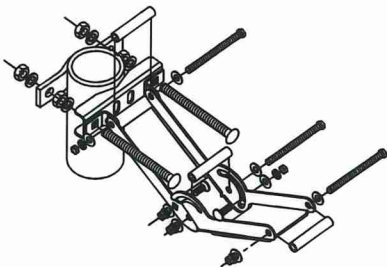
SCALE: N.T.S.

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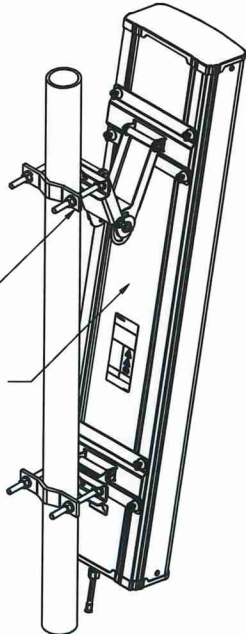
RADIO MOUNTING DETAIL

SCALE: N.T.S.

2

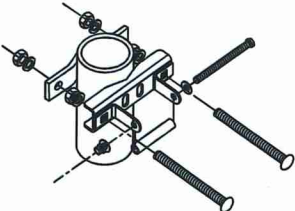


TOP BRACKET

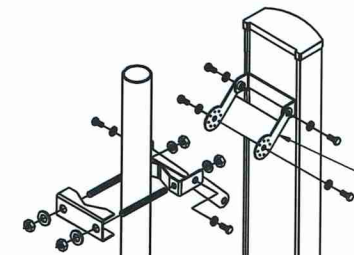


RFS APM40-2 ANTENNA MOUNTING BRACKET (OR EQUIV.), (TYP.)

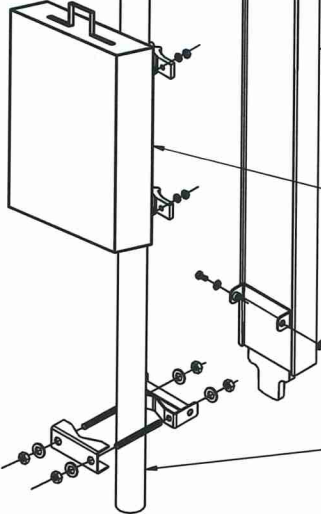
PROPOSED ANTENNA



BOTTOM BRACKET



ANTENNA MOUNTING BRACKET, SUPPLIED W/ ANTENNA (TYP)



PROPOSED T-MOBILE ANTENNA

PROPOSED RADIO W/ MFG. SUPPLIED MOUNTING HARDWARE

PROPOSED T-MOBILE ANTENNA MOUNTING PIPE OR TOWER LEG

T-Mobile

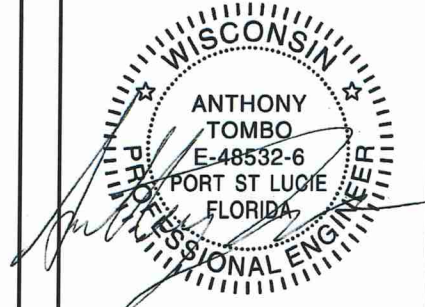
T-MOBILE USA, INC.
8000 WEST 78TH STREET
SUITE 400
EDINA, MN 55439
OFFICE: 612.701.2069



POWDER RIVER
Development Services, LLC

BUSINESS LICENSE #: N/A

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12955 CABLE SUNSET RD
CABLE, WI 54821
BAYFIELD COUNTY

SHEET TITLE:
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SHEET NUMBER:

C-3

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Power Transmission
PowerPlus
PowerPlus 100-3-1U

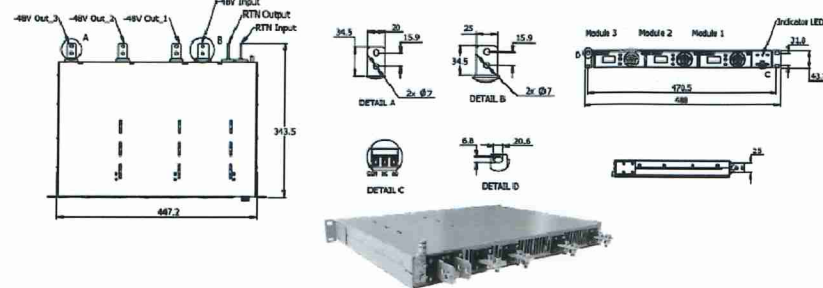


Block	3 PowerPlus Modules
Module capacity	193 kW
Total power	580 A
Total maximum output current	580 A
Total output voltage range (3 modules) @ P _{in} max	45 to 55 Vdc
Combined output voltage range	45 to 55 Vdc
Combined efficiency (3 modules)	99%
Electrical Specifications (per module)	
Input voltage range	48 to 48 Vdc
Max input current	100 A
Efficiency	99%
Output voltage range	45 to 55 Vdc
Output current max	193 A
Rated output power	6.9 kW
Output voltage range @ P _{in} max @ nom V _{in}	5.0 mVdc

Environmental Specifications	Mechanical Specifications
Operating temperature	Case (top)
Storage temperature	Net weight (top)
	Depth (module)
	Height (module)
	Width (module)
	Weight (module)
	Cooling

UL 4000
EN 50022 (SVC)
CE UL (Pending)

Dimensional Drawings (in mm)



MANUFACTURER: RAYCAP
MODEL: BOTTOM JUNCTION BOX
WEIGHT: 21.9 LB
DIMENSIONS: HxWxD: 14" x 16" x 8"

VOLTAGE BOOSTER INFORMATION

SCALE: N.T.S.

3

JUNCTION BOX DETAIL

SCALE: N.T.S.

1



20A OUTDOOR GFCI/SWITCH COMBO

NOTE:
REPLACE THE STANDARD SWITCH
SUPPLIED WITH THE ENCLOSURE WITH
AN INTERMATIC 20A, SPST, SPRING
WOUND TIMER SWITCH WITH A RANGE
FROM 0 TO 2 HOURS (INTERMATIC
PART NO. FF2H) OR EQUIVALENT.
THE SWITCH SHALL NOT HAVE A HOLD
FEATURE TO OVERRIDE THE TIMER.

MANUFACTURER:	MIDWEST ELECTRIC PRODUCTS (OR EQUIVALENT)
MODEL:	U010S010GRP
DIMENSIONS:	5" x 7"
WEIGHT:	4.5 LBS
AMPS:	20
VOLTS:	120



Parameters

7250 IXR-e V2

Height / RU	1 RU
Forwarding Capacity (FD)	300Gbps
Temperature Range	-40°C to 65°C
10G Port Count	24p SFP/SFP+
25G Port Count	8p SFP28/SFP+
100G Port Count	2p QSFP28
Power Supply	AC/DC 300W
Timing	Software support Built-in GNSS available in end of 2020

GFCI w/ TIMER DETAIL

SCALE: N.T.S.

4

7250 IXR-E V2 INTERCONNECT ROUTER DETAIL

SCALE: N.T.S.

2

T-Mobile

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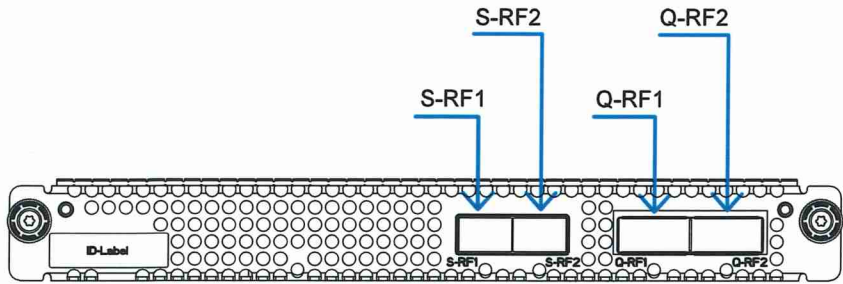
C-4

NOT USED

5

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NOKIA



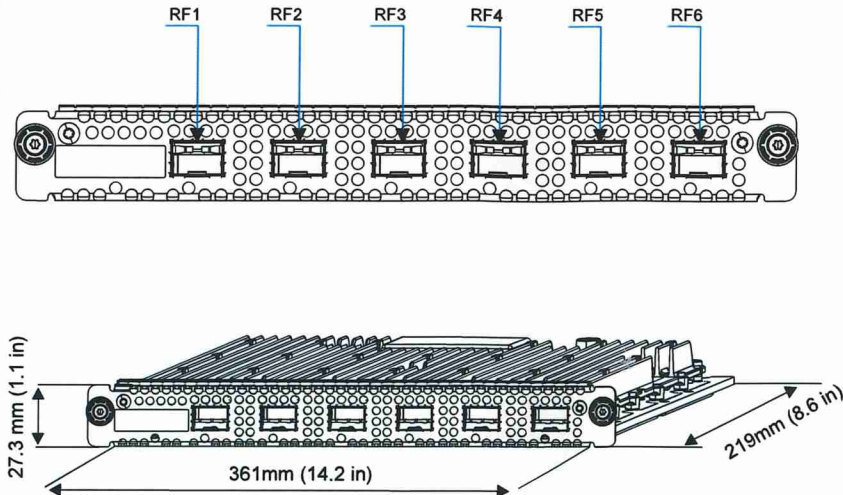
MANUFACTURER: NOKIA
MODEL: ASIL
DIMENSIONS: HxWxD: 1.9" x 8.6" x 14.8"
WEIGHT: 6.6LB

ASIL DETAIL

SCALE: N.T.S.

5

NOKIA



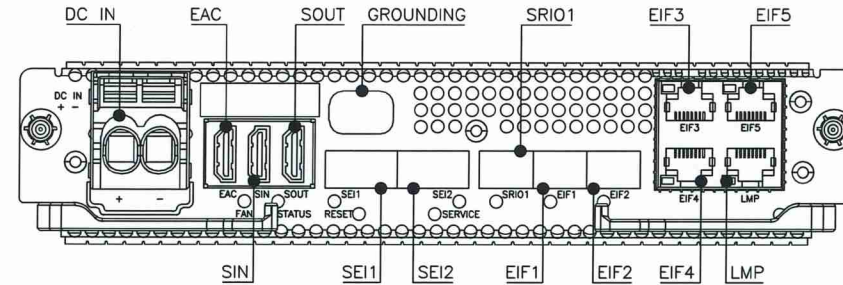
MANUFACTURER: NOKIA
MODEL: ABIA
DIMENSIONS: HxWxD: 1.1" x 14.2" x 8.6"
WEIGHT: 4.6LB

ABIA DETAIL

SCALE: N.T.S.

3

NOKIA



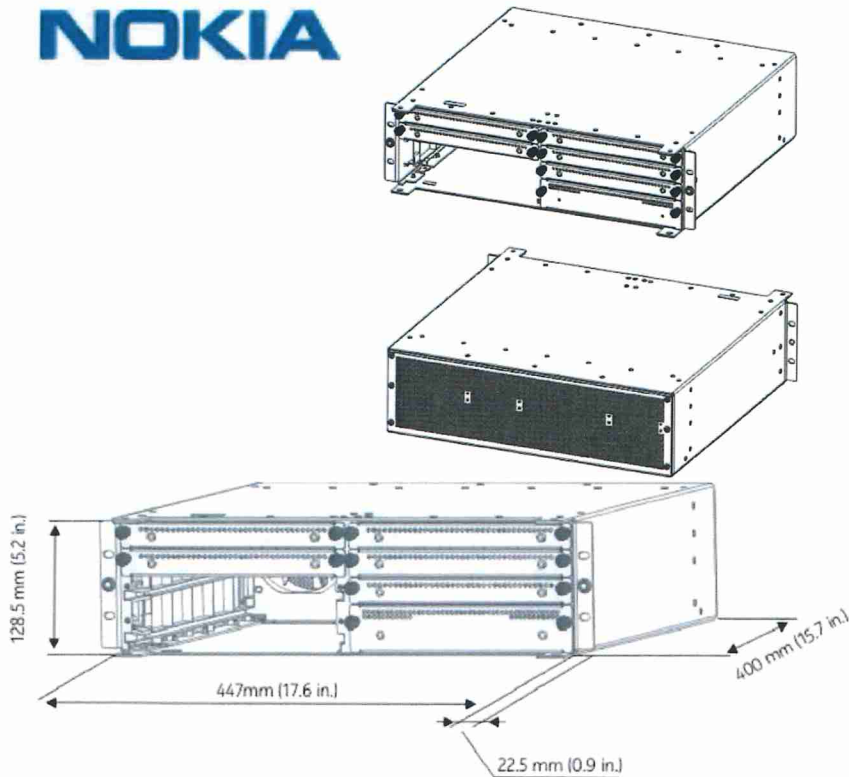
MANUFACTURER: NOKIA
MODEL: ASIB
DIMENSIONS: HxWxD: 1.7" x 8.6" x 14.2"
WEIGHT: 6.4LB

ASIB DETAIL

SCALE: N.T.S.

1

NOKIA



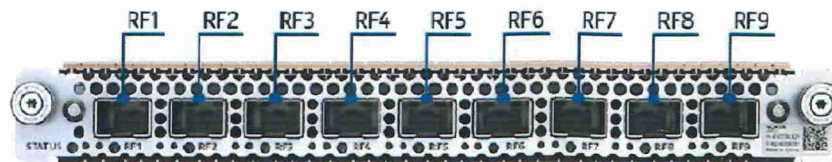
MANUFACTURER: NOKIA
MODEL: AMIA
DIMENSIONS: HxWxD: 5.1" x 17.6" x 15.7"
WEIGHT: 11.2LB

AMIA DETAIL

SCALE: N.T.S.

6

NOKIA



MANUFACTURER: NOKIA
MODEL: ABIC
DIMENSIONS: HxWxD: 1.7" x 14.2" x 8.6"
WEIGHT: 5.8LB

ABIC DETAIL

SCALE: N.T.S.

4

PENDING SPEC SHEET

ABIO DETAIL

SCALE: N.T.S.

2

T-Mobile

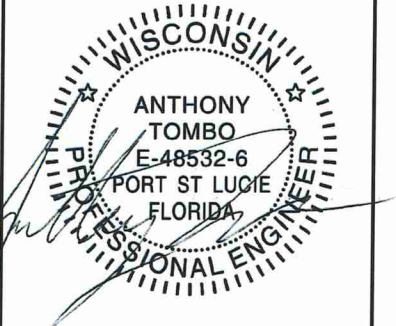
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CABLE, WI 54821
BAYFIELD COUNTY

SHEET TITLE:

EQUIPMENT DETAILS

SHEET NUMBER:

C-5



Specifications

Model	HP-Large 3 Power Cabinet	
1. General		
Construction	Aluminum enclosure	
Dimensions (W x H x D)	30 x 72 x 36 in. (762 x 1829 x 914mm), Depth with door: 43 in. (1092mm)	
Weight	~551 lbs (~270kg) (without customer equipment or batteries)	
Internal rack dimension	Total Equipment space, 30RU:	
	Horizontal rack: 19" x 27RU	
	Vertical rack: 19" x 3RU	
	Power System space: 23" x 12RU	
Mounting options	Pad-mount, plinth option	
Finish	Polyester Powder Paint (Tan)	
Safety	UL Listed, IEC / EN 60950	
2. Environment		
Operating temperature	-40°C to +50°C (-40°F to +122°F) with solar load, IP55	
Protection class	designed to GR-487	
Acoustics	5°C delta T: 70 dBA @ 6000W, 65dBA @5000W heat load	
Humidity (relative)	95%, non-condensing (Max.)	
3. Thermal management		
Cooling Equipment:	Direct Air Cooling, 6000W capacity, 5°C delta T (6) centrifugal redundant fans, (3) Merv-13 or optional GORE filters front door (3) Merv-13 filters Rear hatch	
Heating Equipment:	Forced air heating (2) 1000W AC heaters	
4. Equipment		
Cable Entry	Knock-out plate on each upper side wall Additional knockouts each side (1) 3" conduit hole with hole plug	
Door latch	3 point latching, 5/16 nut driver tool, pad-locking capability	
Primary ground	10 double-hole 1/4"-20 threaded holes on 5/8" center ground bar	
Lifting Ears	4 Lifting Tabs	
Standard equipment	AC Load Center: 240V split phase, dual feed / (1) 200A + (1)100A 208V 3-phase, single feed / (1) 200A AC Surge Protection for each breaker feed GFCI Receptacle 120V (6 form-C) Alarm Termination block (1) Thermal Probe 60SA/ 54V (336kW) redundant Power System with DIN rail distribution: 12 rectifier positions (3x55A DPR3000 rectifiers included) 52 poles for load (2x10A, 3x50A, and 6x100A load breakers included) 16 poles for battery (2) SB350 generator connector LVD over-ride switch (2) SB175 Battery connections (2) SB350 Battery connections Front Door: (6) DC powered centrifugal fans with (3) MERV-13 filters, (GORE option) Clogged Filter alarm pressure switch Door intrusion alarm (2) 1000W AC powered heaters LED interior cabinet light Rear Hatch: Exhaust vent with (3) MERV-13 filters	
5. Ordering Information		
Cabinet	ESOA600-HCU01	HP-Large 3 600A Power / Equipment Cabinet
Rectifier	ESR-48/60A A-T	48V / 56A 3000W, 96.4%, CAN communication
Controller (Spare)	TPS1020028AU17	Orion TOUCH Controller
Plinth, 6"	37993318816900-S	Plinth for V1/V2, HPL2, HPL3, LB2 and LB3 cabinets

Delta Group Website:
www.deltaww.com

Product Website:
www.deltapowersolutions.com

United States of America & Canada:
Delta Electronics U.S. Inc.
2925 E. Plano Parkway
Plano, TX (Texas) 75074

Sales and Support:
Sales: DEUSTPS.Sales@deltaww.com
Orders: DEUSTPS.Orders@deltaww.com

Field Support:
1-877-DELTA-08 option 3
(877-335-8208 option 3)

DEUSTPS.Support@deltaww.com

Installation Services:
DEUSTPS.Services@deltaww.com

RMA:
DEUSTPS.RMA@deltaww.com

en 10 SA



HP-Large 3 Power Cabinet

Product Features

Compact design for equipment, power and battery:

- 30RU supports 3 radios and transport equipment
- 600A @ -48V power system
- Slimline high efficiency rectifier
- ORION Touch screen Controller
- Rear Access Hatch

Direct air cooling solution, 6000W capacity, 5°C delta T

Easy slide-in filter replacement for Merv-13 or Gore
filter connects with:

- SB3, 2-string battery cabinet
- LB3, 4-string battery cabinet
- V2, Expansion equipment and battery cabinet

Designed to GR-487 specifications



Front Door and Rear Hatch Open

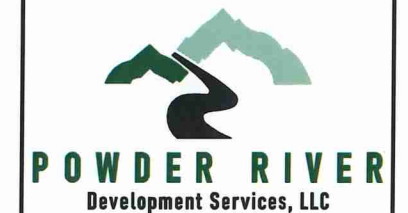
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www.deltaww.com



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EDINA, MN 55439
OFFICE: 612.701.2069



BUSINESS LICENSE #: N/A

REVISIONS			
REV	DATE	DESCRIPTION	INT
1	12/20/21	REVISIONS	LNM
0	12/15/21	100% CONSTRUCTION	BMW
B	12/09/21	ISSUED FOR REVIEW 90%	BWS
A	11/29/21	ISSUED FOR REVIEW 90%	LNM

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SITE INFORMATION:
T-MOBILE SITE #:
A1N0943A

T-MOBILE SITE NAME:
A1N0943A (CABLE TOWER)

12955 CABLE SUNSET RD
CABLE, WI 54821
BAYFIELD COUNTY

SHEET TITLE:
EQUIPMENT DETAILS

SHEET NUMBER:
C-6



Specifications

Model LB3 (Large Battery 3 Cabinet)

1. General		
Construction	Aluminium enclosure	
Dimensions	30 x 72 x 35 in. (381 x 1829x 889mm),	
(W x H x D)	Depth with Door: 41.2 in. (1047mm)	
Weight	~540 lbs (~245kg) (without batteries)	
Internal rack dimension	4 battery trays to support up to 4 strings 210Ah batteries	
Mounting options	Pad-mount, plinth option	
Finish	Polyester Power Paint (Tan)	
Safety	UL Listed , IEC / EN 60950	
2. Environment		
Operating temperature	-40°C to +50°C (-40°F to +122°F) with solar load	
Protection class	IP55 designed to GR-487	
Acoustics	65dBA	
Humidity (relative)	95%, non-condensing (Max.)	
3. Thermal Management		
Cooling Equipment:	Direct Air Cooling	
Heating Equipment:	Forced air heating (1) 1000W AC heaters	
4. Equipment		
Cable entry	Knock-out plate on each upper side wall Additional knockouts each side	
Door latch	3 point latching, 5/16 nut driver tool, pad-locking capability	
Primary ground	10 double-hole 1/4"-20 threaded holes on 5/8" center ground bar	
Lifting Ears	4 Lifting Tabs	
Plinth	Optional 6" plinth available AC Load Center: 30A heater breaker Left or Right side AC entry options AC Surge Protection (option) DC Load Center: 600A bulk feed bus bar (4) 200A bolt in battery breakers (4) 2-hole lug landings, (2 output/2 input from second battery cabinet)	
Standard equipment	Temp Probes Battery Trays: (4) battery trays (4) -48V battery strings (210Ah max each) Connection kit: (1) DC 10A Breaker supplied (install onto HPL3 Power Cabinet) LED interior cabinet light (2) DC powered Axial fans with (1) F5 Filters Door intrusion alarm (1) 1000W AC powered heaters	
5. Ordering information		
Cabinet	ESOF015-ECV04	Large Battery 3 (LB3) Cabinet
Plinth, 6"	379933 18816900-S	Plinth for V1/V2, HPL2, HPL3, LB2 and LB3

*All specifications are subject to change without prior notice.

Delta Group Website:
www.deltaww.com

Product Website:
www.deltapowersolutions.com

United States of America & Canada:
Delta Electronics (USA) Inc.
2925 E. Plano Parkway
Plano, TX (Texas) 75074

Sales and Orders:
DEUSTPS.Sales@deltaww.com
DEUSTPS.Orders@deltaww.com

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(877-335-8208 option 3)
DEUSTPS.Support@deltaww.com

Installation Services:
DEUSTPS.Services@deltaww.com

RMA:
DEUSTPS.RMA@deltaww.com



www.deltaww.com

Large Battery 3 Cabinet

Product Features

Compact design for battery strings:

- Direct air cooling solution
- Supports four strings of -48V VRLA batteries up to 210Ah
- 600A rated bus bar with 200A breaker per string
- Bulk Input / Output with ability to daisy chain cabinets
- Front to Front Air Flow
- Corrosion resistant aluminum construction
- Powder coated high gloss finish
- Designed to meet GR-487



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8000 WEST 78TH STREET
SUITE 400
EDINA, MN 55439
OFFICE: 612.701.2069



BUSINESS LICENSE #: N/A

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A1N0943A (CABLE TOWER)

12955 CABLE SUNSET RD
CABLE, WI 54821
BAYFIELD COUNTY

SHEET TITLE:
EQUIPMENT DETAILS

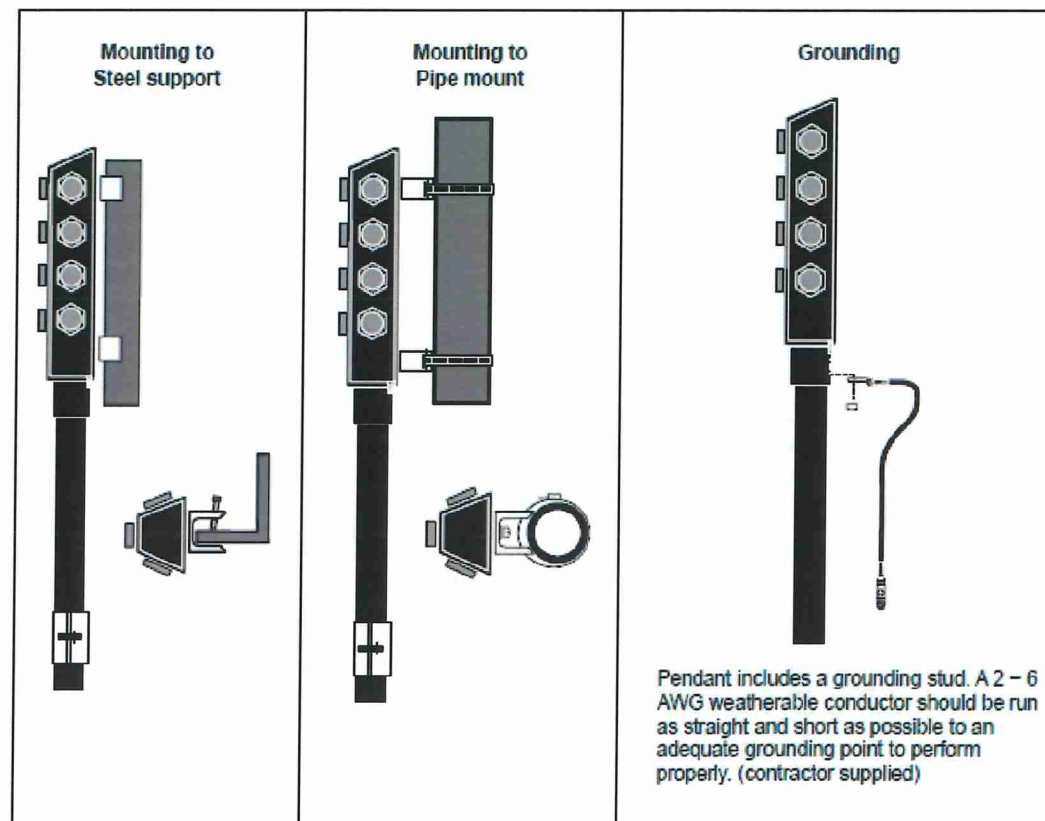
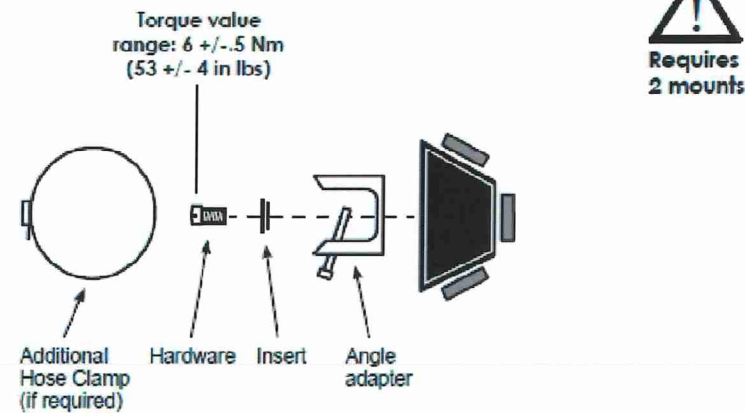
SHEET NUMBER:

C-7

Technical Publication

COMMSCOPE®

Section 4: Mounting / Grounding



Visit www.commscope.com for complete specifications on all the products listed.

Bulletin # 7727406 Rev. C

1

CABLE & PENDANT MOUNT DETAILS

SCALE: N.T.S.

2

Technical Publication

COMMSCOPE®

Section 2: General Specifications

Cable Type	FD2606-24555-XXX
Brand	HELIX® FiberFeed®
Center Conductor Gauge	6 AWG
Conductors, quantity	6
Total Fiber Quantity	24
Shielding Type	Corrugated aluminum
Fiber Type	Bend insensitive single mode fiber (G.657.A2)
Construction Type	Direct Breakout

Dimensions

Cable Weight	1450.0 kg/km 970.0 lb/kft
Diameter Over Jacket	30.50 mm 1.20 in
Breakout Length, Fiber, end 1	HQLC Connectors
Breakout Length, Power, end 1	HQLC Connectors
Breakout Length, Fiber, end 2	826 mm 33 in
	775 mm 31 in
Breakout Length, Power, end 2	610 mm 24 in

Physical Specifications

Minimum Bend Radius, loaded	609.6 mm 24 in
Minimum Bend Radius, unloaded	304.8 mm 12 in
Tensile Load, long term, maximum	1068 N 240 lbf
Tensile Load, short term, maximum	3559 N 800 lbf

Cable Type	FD21206-48S55-XXX
Brand	HELIAX® FiberFeed®
Center Conductor Gauge	6 AWG
Conductors, quantity	12
Total Fiber Quantity	48
Shielding Type	Corrugated aluminum
Fiber Type	Bend insensitive single mode fiber (G.657.A2)
Construction Type	Direct Breakout

Dimensions

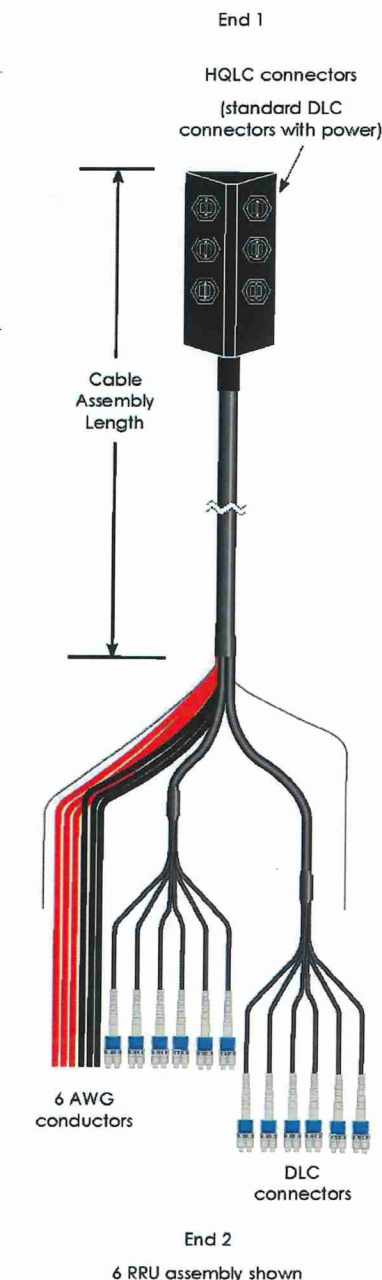
Cable Weight	2544.0 kg/km 1710.0 lb/kft
Diameter Over Jacket	39.38 mm 1.55 in
Breakout Length, Fiber, end 1	HQLC Connectors
Breakout Length, Power, end 1	HQLC Connectors
Breakout Length, Fiber, end 2	826 mm 33 in
	775 mm 31 in
Breakout Length, Power, end 2	610 mm 24 in

Physical Specifications

Minimum Bend Radius, loaded	787.4 mm 31.0 in
Minimum Bend Radius, unloaded	472.4 mm 18.6 in
Tensile Load, long term, maximum	801 N 180 lbf
Tensile Load, short term, maximum	2669 N 600 lbf

Visit www.commscope.com for complete specifications on all the products listed

Bulletin # 7727406 Rev. C

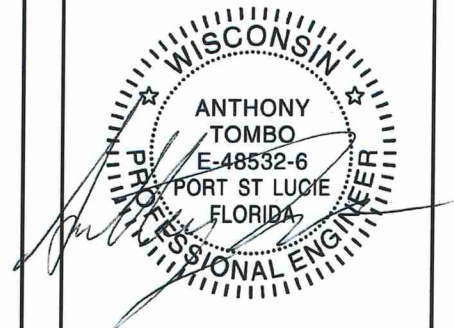


T-MOBILE USA, INC.
8000 WEST 78TH STREET
SUITE 400
EDINA, MN 55439
OFFICE: 612.701.2069



BUSINESS LICENSE #:	N/A
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REVISIONS			
REV	DATE	DESCRIPTION	INT
1	12/20/21	REVISIONS	LNM
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A	11/29/21	ISSUED FOR REVIEW 90%	LNM



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A1N0943A

**T-MOBILE SITE NAME:
A1N0943A (CABLE TOWER)**

**12955 CABLE SUNSET RD
CABLE, WI 54821
BAYFIELD COUNTY**

SHEET TITLE:

EQUIPMENT DETAILS

SHEET NUMBER:

C-8

SCALE: N.T.S.

1

GLT

PROJECT NAME: _____ CATALOG NUMBER: _____
NOTES: _____ FIXTURE SCHEDULE: _____

LED FLOOD LIGHT
SFL2 SERIES



FEATURES:

- Construction**
- Housing, electrical compartment and fitter are all made from die case aluminum that is pre-treated and powder-coated to meet the most rugged industry standards.
 - Door frame features an integral accessory channel for the mounting of optional light control accessories.
 - Vented housing isolates LED module from driver, maximizing product life and performance
 - Door frame seals to housing with a continuous extruded silicone gasket.
- Electrical**
- Universal 120-277 VAC input voltage.
 - Both drivers have a power factor >90%, THD <20%, and an expected life of 100,000 hours.
 - Operating Temperature Range: -40C - + 40C (-40F - + 104F)

PRODUCT DESCRIPTION:

The GLT SFL2 luminaire is a high performance LED lighting solution designed with optical versatility and a slim, low profile design. Its rugged cast aluminum housing minimizes wind load requirements and features an integral, watertight LED driver compartment and high performance aluminum heat sinks. Markets include parking lots, walkways, campuses, car dealerships, office complexes, and internal roadways.

APPLICATIONS:

Building lighting, facade lighting, wall washing, poster board lighting, landscape lighting.

Optical System

- Optics(NEMA Type): 7H*6V Wide Distribution
- Scalable Lumen Packages from 2,000 to 7,600 Lumens.
- Provides the best combination of vertical and horizontal illumination while reducing light behind the poles.
- High performance acrylic optic securely attached to internal heat sink for maximum thermal dissipation.

Certifications

- DesignLights Consortium™ Qualified.
- UL cUL wet location listed.

Warranty

5 years limited warranty.

ORDERING INFORMATION:

Example: SFL-15W-UV-B77-50K-THK

SFL Series	Wattage	UV Voltage	B77 Distribution	50K CCT	THK Mounting
SFL2	15W	15 watts	B77 7H x 6V	50K 5000K	THK Knuckle
	30W	30 watts			TR Trunnion
	45W	45 watts			
	60W	60 watts			

Revised: 12-03-20

GLT

LED FLOOD LIGHT
SFL2 SERIES

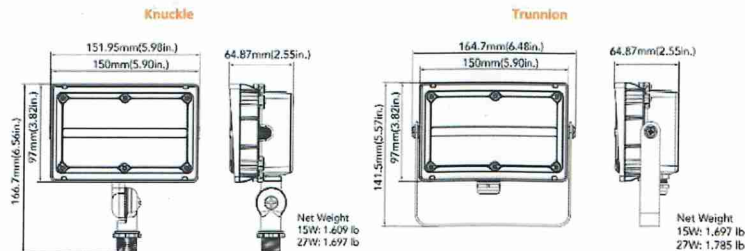
SPECIFICATIONS:

Dimming	0-10V dimmable	Color Finish	Dark Bronze
Housing Material	Die-cast aluminum	Operating Temperature	-40°C to 40°C
Lens Type	Acrylic	Environment	Suitable for wet location
Light Distribution	NEMA 7H x 6V	L70 Life	100,000 hours
Power Factor	0.90	Warranty	5 Years

PERFORMANCE DATA: SFL2-15W & SFL2-30W

SKU	SFL2-15W-UV-B77-50K-XX	SFL2-30W-UV-B77-50K-XX
MFR Part #	MFD0815W27V50KDB76XX	MFD0827W27V50KDB76XX
DLC ID #	PUP1820J	PMJDN552
HID Equal	70W MH	150W MH
Wattage	15 Watts	27 Watts
Lumens	2,000	3,600
CCT	5000K	5000K
Voltage	120-277V	120-277V
Efficacy	130 lm/W	130 lm/W
CRI	70	70

DIMENSIONS: Knuckle & Trunnion Mount



Revised: 12-03-20

GLT

LED FLOOD LIGHT
SFL2 SERIES

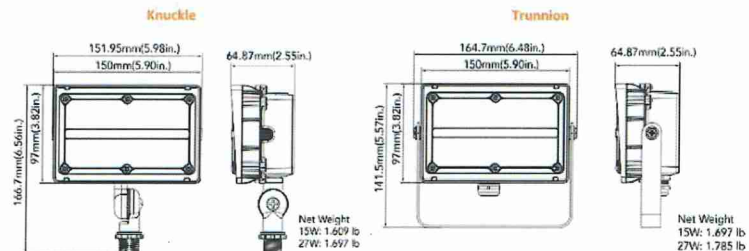
SPECIFICATIONS:

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Housing Material	Die-cast aluminum	Operating Temperature	-40°C to 40°C
Lens Type	Acrylic	Environment	Suitable for wet location
Light Distribution	NEMA 7H x 6V	L70 Life	100,000 hours
Power Factor	0.90	Warranty	5 Years

PERFORMANCE DATA: SFL2-15W & SFL2-30W

SKU	SFL2-15W-UV-B77-50K-XX	SFL2-30W-UV-B77-50K-XX
MFR Part #	MFD0815W27V50KDB76XX	MFD0827W27V50KDB76XX
DLC ID #	PUP1820J	PMJDN552
HID Equal	70W MH	150W MH
Wattage	15 Watts	27 Watts
Lumens	2,000	3,600
CCT	5000K	5000K
Voltage	120-277V	120-277V
Efficacy	130 lm/W	130 lm/W
CRI	70	70

DIMENSIONS: Knuckle & Trunnion Mount



Revised: 12-03-20

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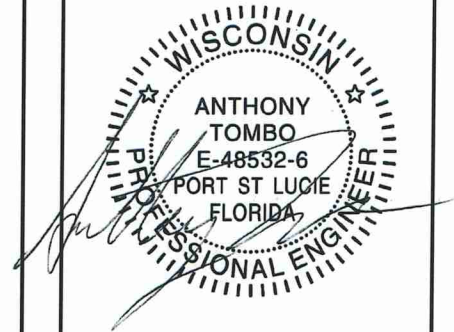
T-MOBILE USA, INC.
8000 WEST 78TH STREET
SUITE 400
EDINA, MN 55439
OFFICE: 612.701.2069



POWDER RIVER
Development Services, LLC

BUSINESS LICENSE #: N/A

REVISIONS			
REV	DATE	DESCRIPTION	INT
1	12/20/21	REVISIONS	LNW
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B	12/09/21	ISSUED FOR REVIEW 90%	BWS
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T-MOBILE SITE NAME:
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12955 CABLE SUNSET RD
CABLE, WI 54821
BAYFIELD COUNTY

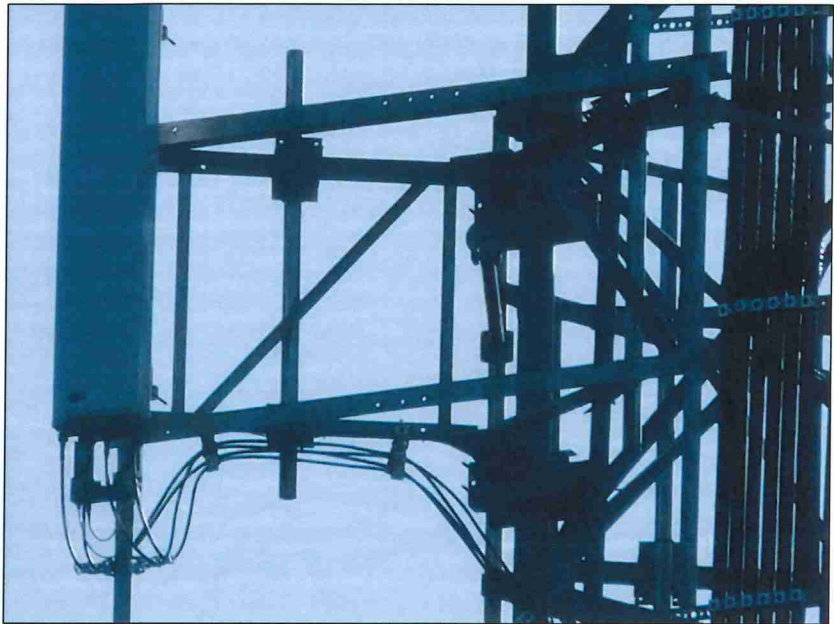
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C-9

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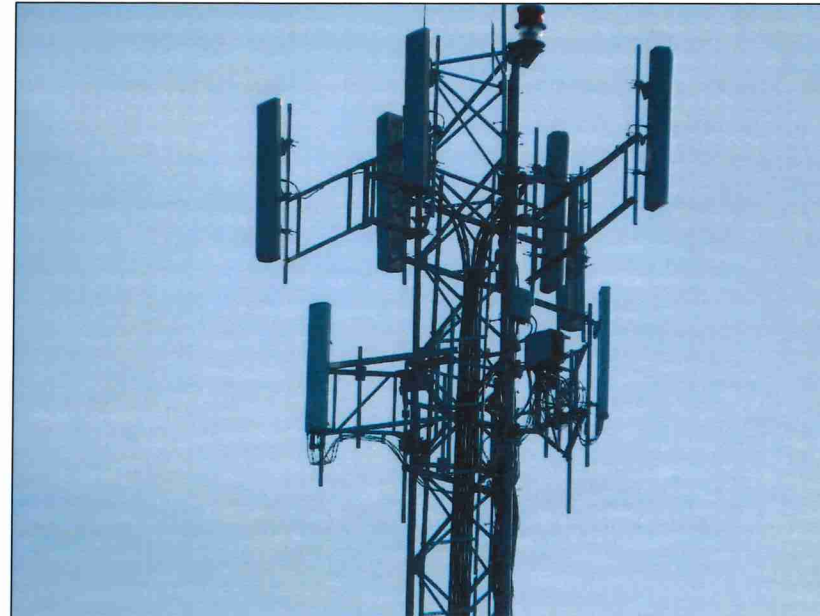
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5



SITE PHOTO

3



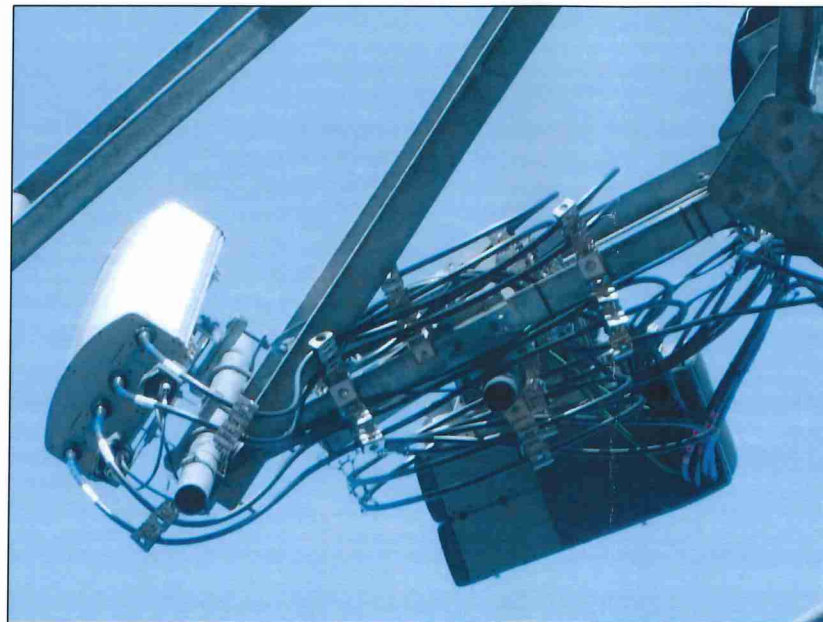
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1



SITE PHOTO

6



SITE PHOTO

4



SITE PHOTO

2

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12955 CABLE SUNSET RD
CABLE, WI 54821
BAYFIELD COUNTY

SHEET TITLE:
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C-10

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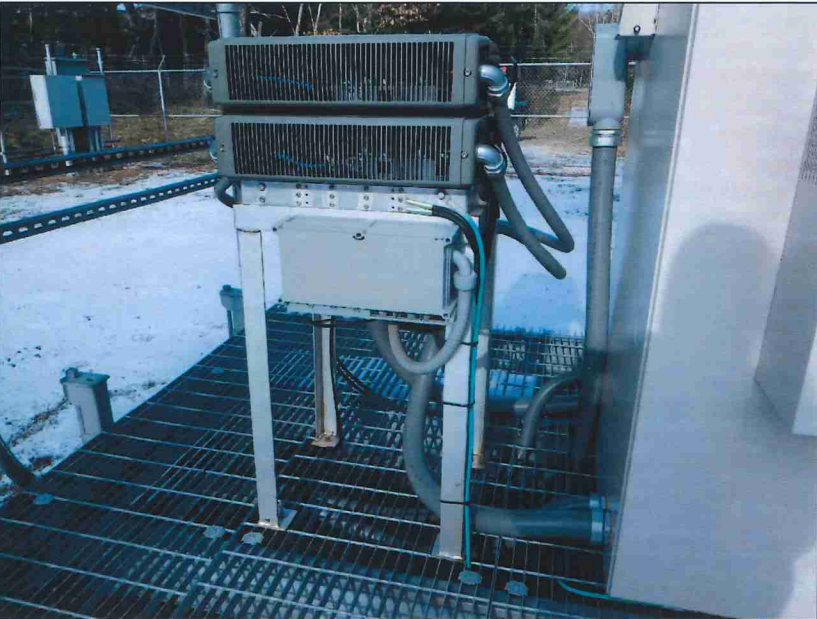
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SITE PHOTO

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SITE PHOTO

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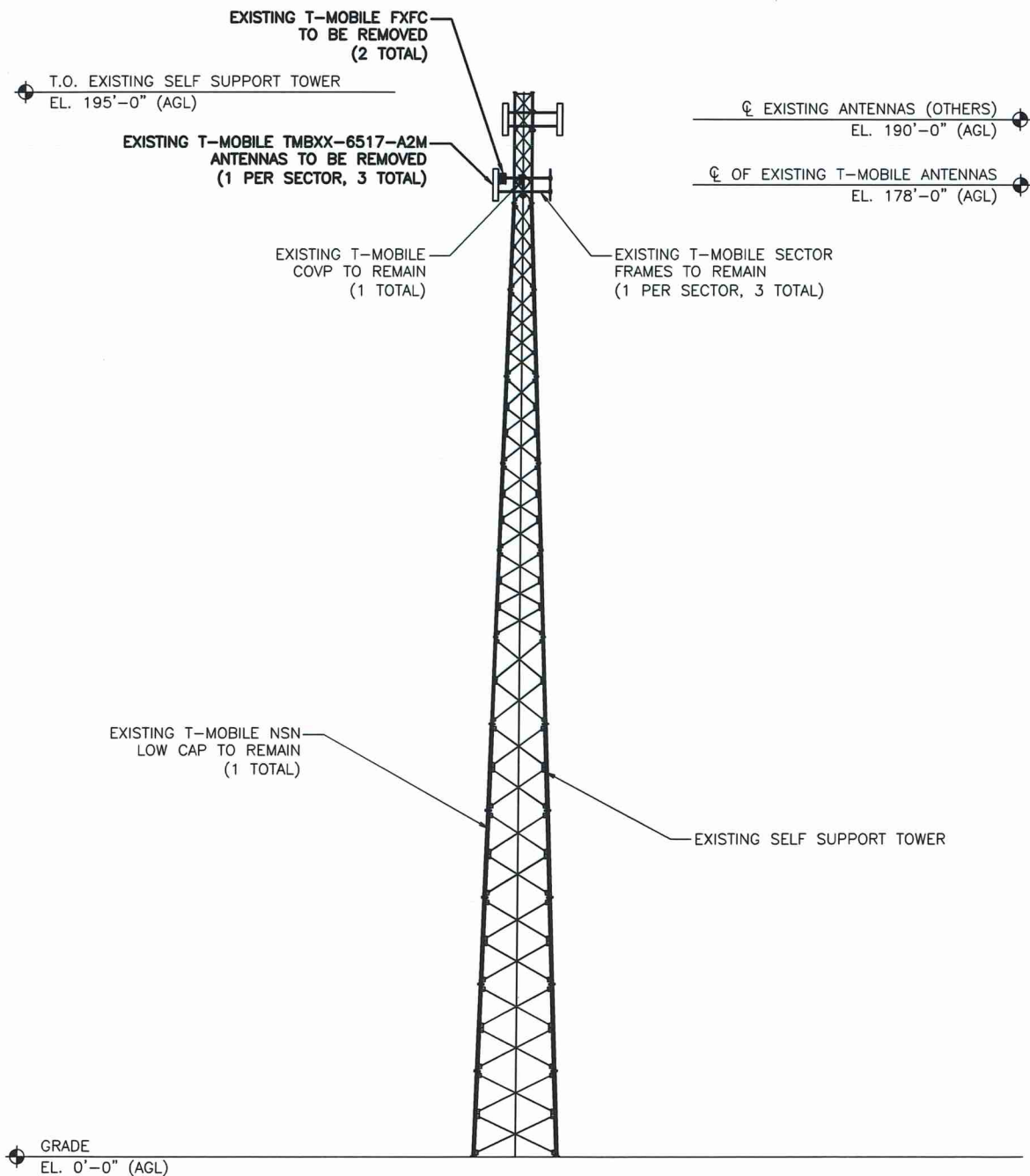
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12955 CABLE SUNSET RD
CABLE, WI 54821
BAYFIELD COUNTY

SHEET TITLE:
SITE PHOTOS

SHEET NUMBER:
C-11

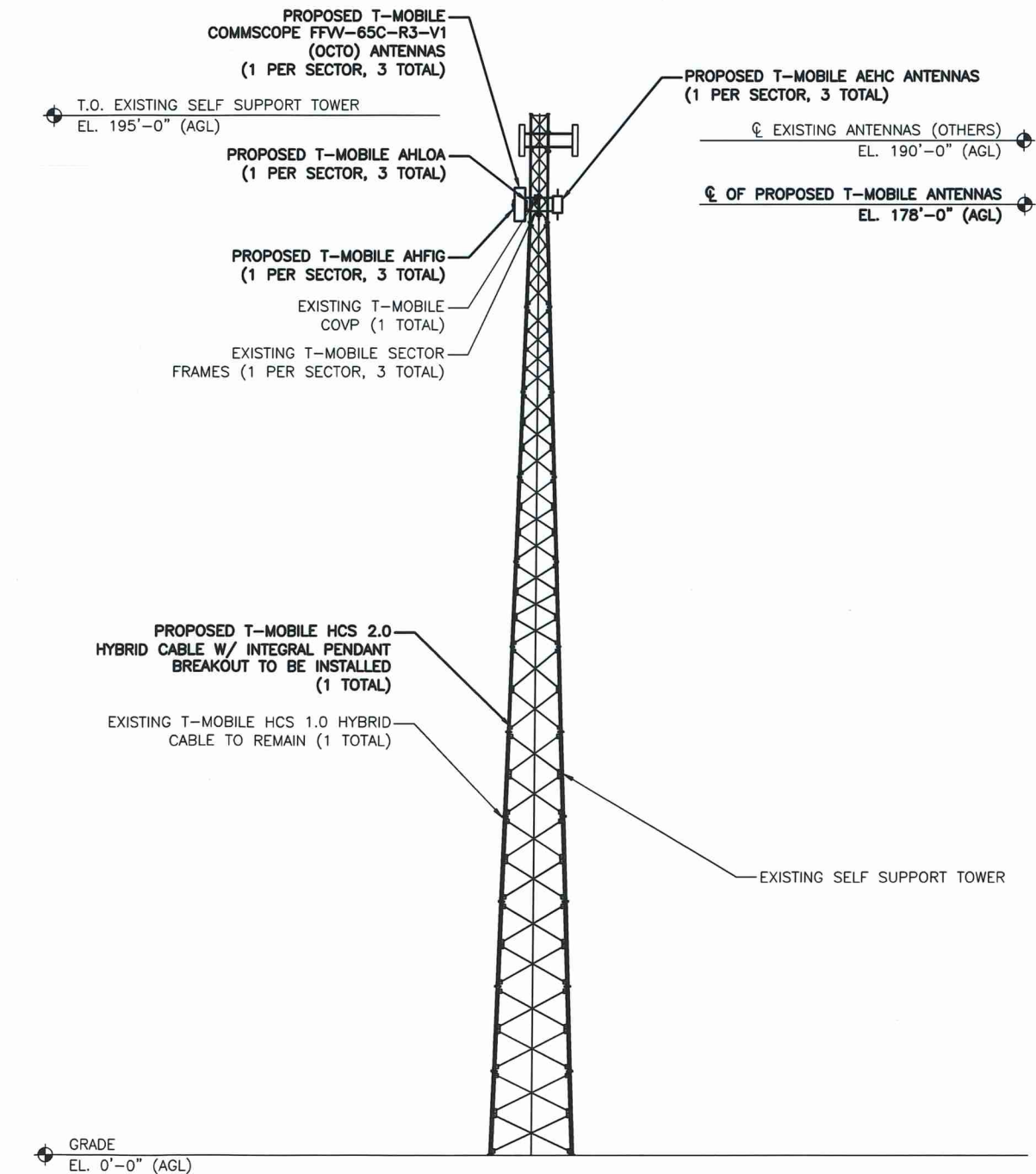
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TOWER ELEVATION (EXISTING)

SCALE: 1" = 30' (11x17)

2



TOWER ELEVATION (PROPOSED)

SCALE: 1" = 30' (11x17)

1

PRIOR TO CONSTRUCTION, STRUCTURAL ANALYSIS SHALL BE PERFORMED FOR ALL NEW AND EXISTING SUPPORTING TOWERS, ROOFTOPS, FLAG POLES, LIGHT POLES AND ASSOCIATED EQUIPMENT MOUNTS. CONTRACTOR SHALL REVIEW THE SIGNED/SEALED STRUCTURAL ANALYSIS REPORTS PRIOR TO CONSTRUCTION AND SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES LISTED WITHIN THE REPORT(S). ALL CONSTRUCTION, MODIFICATIONS AND/OR REPLACEMENT SPECIFICATIONS SHALL BE FULLY IMPLEMENTED EXACTLY AS NOTED WITHIN THE STRUCTURAL ANALYSES REPORTS/LETTERS.

POWDER RIVER DEVELOPMENT SERVICES, LLC HAS PERFORMED THE FOLLOWING STRUCTURAL ANALYSES AND/ OR CERTIFICATIONS FOR PROPOSED SCOPE OF WORK:

1. MOUNT ANALYSIS REPORT REV 1, DATED 12/20/2021.
2. TOWER ANALYSIS REPORT REV 1, DATED 12/20/2021.

NOTE:
TOWER ELEVATION BASED ON PHOTOS, RFDS, AND PREVIOUS DRAWINGS. CONTRACTOR TO VERIFY EXISTING EQUIPMENT AND MOUNTING HEIGHTS.

NOTE:
G.C. TO CAP OFF AND SEAL EACH EXISTING UNUSED COAX LINE.

FINAL T-MOBILE APPURTENANCE LIST:

- (3) V-ARM SECTOR FRAMES
- (3) QUAD PORT ANTENNAS
- (3) AEHC ANTENNAS
- (3) AHFIG RADIOS
- (3) AHLOA RADIOS
- (1) HCS 2.0 HYBRID CABLE w/ INTEGRAL PENDANT BREAKOUT
- (1) COVP
- (1) NSN LOW CAP HCS 1.0 HYBRID CABLE

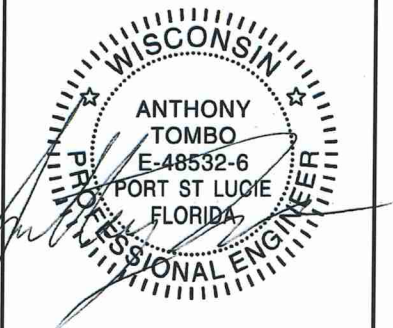
T-Mobile

T-MOBILE USA, INC.
8000 WEST 78TH STREET
SUITE 400
EDINA, MN 55439
OFFICE: 612.701.2069

POWDER RIVER
Development Services, LLC

BUSINESS LICENSE #: N/A

REVISIONS				
REV	DATE	DESCRIPTION	INT	
1	12/20/21	REVISIONS		LNK
0	12/15/21	100% CONSTRUCTION		BNW
B	12/09/21	ISSUED FOR REVIEW 90%		BWS
A	11/29/21	ISSUED FOR REVIEW 90%		LNK



THESE PLANS AND SPECIFICATIONS, AS INSTRUMENTS OF SERVICE, ARE AND SHALL REMAIN THE PROPERTY OF POWDER RIVER DEVELOPMENT SERVICES, LLC. WHETHER THE PROJECTS FOR WHICH THEY ARE MADE ARE EXECUTED OR NOT, THESE DRAWINGS AND SPECIFICATIONS SHALL NOT BE USED BY ANY PERSON OR ENTITY ON OTHER PROJECTS WITHOUT PRIOR WRITTEN CONSENT OF THE ENGINEER.

SITE INFORMATION:
T-MOBILE SITE #:
A1N0943A

T-MOBILE SITE NAME:
A1N0943A (CABLE TOWER)

12955 CABLE SUNSET RD
CABLE, WI 54821
BAYFIELD COUNTY

SHEET TITLE:
TOWER ELEVATIONS

SHEET NUMBER:

A-1

THE INFORMATION CONTAINED IN THIS SET OF CONSTRUCTION DOCUMENTS IS PROPRIETARY BY NATURE. ANY USE OR DISCLOSURE OTHER THAN THAT WHICH RELATES TO CARRIER SERVICES IS STRICTLY PROHIBITED.

NOTE:
RETURN ALL OLD / UNUSED EQUIPMENT TO THE CTDI
WAREHOUSE PRIOR TO PICKING UP NEXT SITE PACK.

NOTE:
G.C. TO CAP OFF AND SEAL EACH
EXISTING UNUSED COAX LINE.

PRIOR TO CONSTRUCTION, STRUCTURAL ANALYSIS SHALL BE
PERFORMED FOR ALL NEW AND EXISTING SUPPORTING TOWERS,
ROOFTOPS, FLAG POLES, LIGHT POLES AND ASSOCIATED EQUIPMENT
MOUNTS. CONTRACTOR SHALL REVIEW THE SIGNED/SEALED
STRUCTURAL ANALYSIS REPORTS PRIOR TO CONSTRUCTION AND SHALL
NOTIFY THE ENGINEER OF ANY DISCREPANCIES LISTED WITHIN THE
REPORT(S). ALL CONSTRUCTION, MODIFICATIONS AND/OR REPLACEMENT
SPECIFICATIONS SHALL BE FULLY IMPLEMENTED EXACTLY AS NOTED
WITHIN THE STRUCTURAL ANALYSES REPORTS/LETTERS.

POWDER RIVER DEVELOPMENT SERVICES, LLC HAS PERFORMED THE
FOLLOWING STRUCTURAL ANALYSES AND/ OR CERTIFICATIONS FOR
PROPOSED SCOPE OF WORK:

1. MOUNT ANALYSIS REPORT REV 1, DATED 12/20/2021.
2. TOWER ANALYSIS REPORT REV 1, DATED 12/20/2021.

	ANTENNA NUMBER	TECHNOLOGY	ANTENNA VENDOR	MODEL NUMBER	ANTENNA RAD CENTER	AZIMUTH	TMA	DIPLEXER	RRU TYPE	CABLE TYPE / SIZE	HYBRID CABLE LENGTHS	
											CABLE	JUMPER
ALPHA SECTOR	A-1	U1900/L1900	ANDREW	TMBXX-6517-A2M	178'	0°			SHARED	(1) NSN LOW CAP	195'	
BETA SECTOR	B-1	U1900/L1900	ANDREW	TMBXX-6517-A2M	178'	120°			SHARED			
GAMMA SECTOR	G-1	U1900/L1900	ANDREW	TMBXX-6517-A2M	178'	240°			FXFC (2)			

EXISTING ANTENNA AND HYBRID CABLE SCHEDULE

	ANTENNA NUMBER	TECHNOLOGY	ANTENNA VENDOR	MODEL NUMBER	ANTENNA RAD CENTER	AZIMUTH	RRU TYPE	CABLE TYPE / SIZE	HYBRID CABLE LENGTHS	
									CABLE	JUMPER
ALPHA SECTOR	A-1	L7/L6/N6/U19/L21/L19	COMMScope	FFW-65C-R3-V1	178'	0°	AHFIG/AHLOA	(1) NSN LOW CAP	195'	
	A-2	N2500/L2500	NOKIA	AEHC	178'	0°			195'	
BETA SECTOR	B-1	L7/L6/N6/U19/L21/L19	COMMScope	FFW-65C-R3-V1	178'	120°	AHFIG/AHLOA	(1) HCS 2.0 HYBRID CABLE		
	B-2	N2500/L2500	NOKIA	AEHC	178'	120°				
GAMMA SECTOR	G-1	L7/L6/N6/U19/L21/L19	COMMScope	FFW-65C-R3-V1	178'	240°	AHFIG/AHLOA			
	G-2	N2500/L2500	NOKIA	AEHC	178'	240°				

PROPOSED ANTENNA AND HYBRID CABLE SCHEDULE

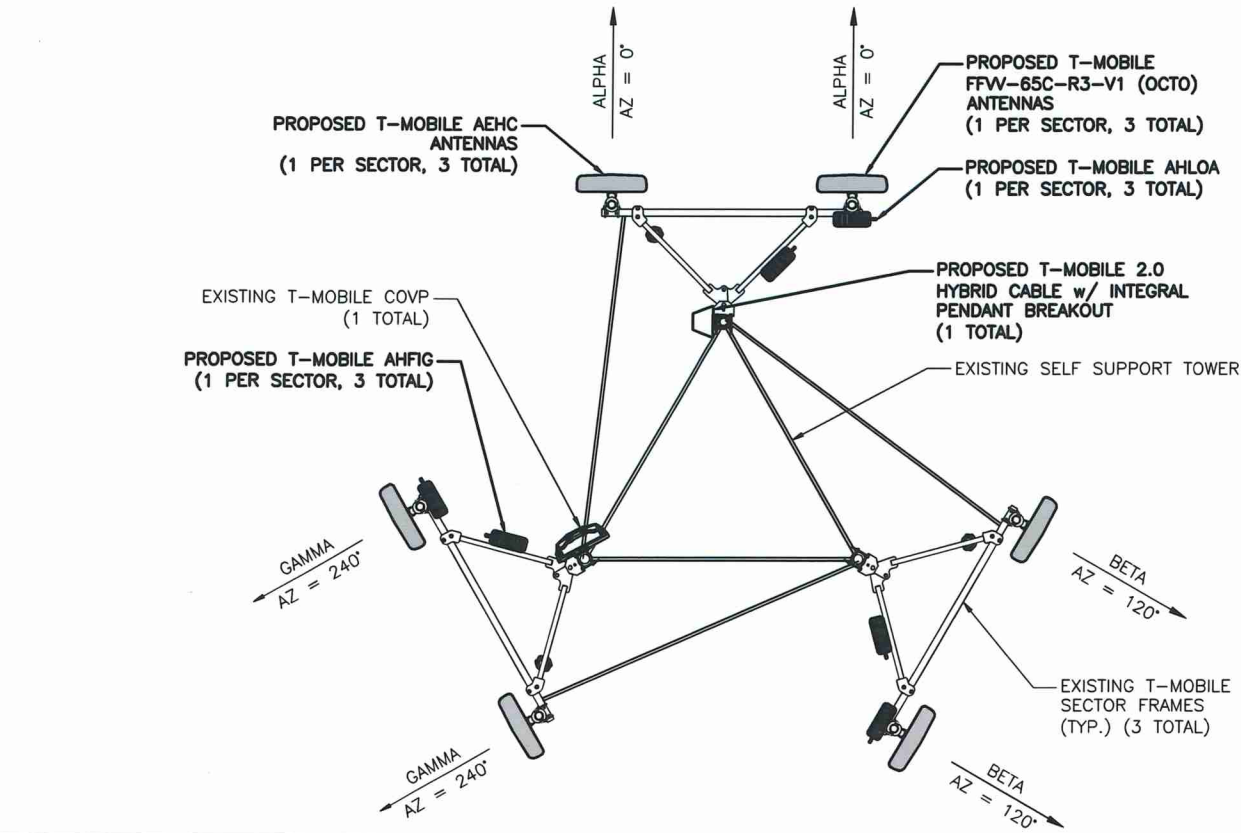
ANTENNA AND COAXIAL CABLE SCHEDULE

2

EXISTING ANTENNA PLAN

SCALE: N.T.S.

3



NOTE:
AZIMUTHS AS REPORTED BY T-MOBILE RFDS
SEE RFDS FOR CABLING REQUIREMENTS

PROPOSED ANTENNA PLAN

SCALE: N.T.S.

1

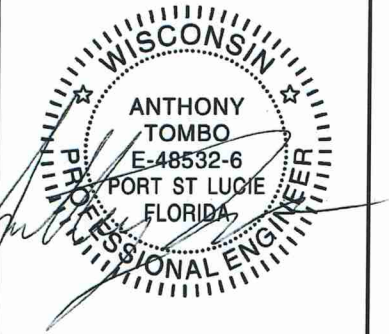
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A1N0943A (CABLE TOWER)

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CABLE, WI 54821
BAYFIELD COUNTY

SHEET TITLE:
ANTENNA PLANS

SHEET NUMBER:
A-2